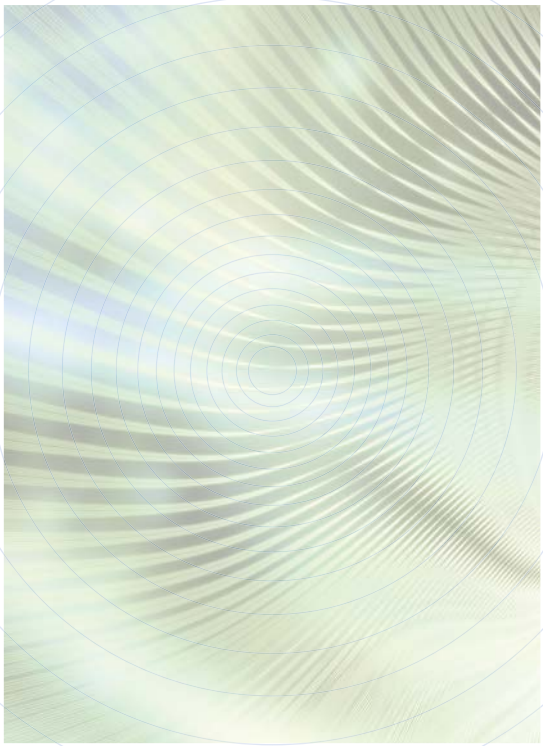
30th Anniversary of VCCI

1985 - 2015



VCCI

Celebrating 30th Anniversary of VCCI

Chief managing director of VCCI

Keiichi Kawakami

VCCI was established in December 1985 by the four organizations of at that time – Japan Electronic Industry Development Association (JEIDA), Japan Business Machine Makers Association (JMBA), Electronic Industries Association of Japan (EIAJ) and Communications Industry Association of Japan (CIAJ) to self-regulate the emission of electromagnetic disturbance. So now we are celebrating the 30th anniversary of VCCI.

We are thankful to related government offices for their support and VCCI members for their efforts to positively meet self-regulating rules of VCCI, which is unparalleled in the world for controlling electromagnetic disturbances. The number of VCCI members is now over 1,100 companies which was 100 companies at the startup time. This fact indicates that the VCCI scheme is widely recognized as a de-facto standard for EMI control.

Meanwhile the environment in which VCCI operates has greatly changed as seen, for example, in the wide spread personal use of smart phones and tablet PCs followed by wearable terminals being introduced in the market. This kind of situation indicates that cases in which individuals depend on information usage over radio waves are rapidly increasing. In the forefront of such technologies are Cyber Physical System (CPS) and Internet of Things (IoT) among others. They are expected to bring forth a society in which everything is interconnected together over the Internet via radio waves to create convenience and new values. Keeping such advanced radio environment harmless will be more important in the society. We expect solid moral support of related government offices and industries as before and all-out commitment of VCCI members for the betterment of radio environment of Japan.

Celebrating 30th Anniversary of VCCI

Manager - Radio environment section,
Telecommunication Bureau,
Ministry of Internal Affairs and
Communications

Isao Sugino

In this opportunity of the 30th anniversary of VCCI I would like to pay my compliment to people involved in the control of radio interference.

The Ministry of Internal Affairs and Communications convened “Discussion on Radio Wave Policy Vision” toward appropriate radio wave utilization after 2020 in Japan, on which the final vision report was issued in December 2014. We are now developing a plan based on this vision to better utilize radio wave resources in Japan and promote the vitalization of our society and economy based on enhanced and enlarged radio wave utilization. In the realization of this plan we cannot go ahead without accompanying efforts to prevent radio wave disturbances.

For this purpose it is necessary to improve the tolerance of equipment to radio disturbances and, at the same time, to appropriately control the emission of radio disturbances form the own equipment. With this goal in mind the Ministry of Internal Affairs and Communication is committed to positively contribute to the development of international standards in CISPR and promote their local adaptation in Japan

In the past the international standard to deal with radio disturbances from ITE such as personal computers, smartphones and their peripheral equipment was CISPR 22. This standard was integrated with CISPR 13 for radio and TV receivers and was newly released as CISPR 32 in 2012. The Information and Communications Council of MIC released Japanese standard based on CISPR 32 in December 2015. In this opportunity I would like to ask VCCI to revise its Technical Requirements based on CISPR 32 at the earliest opportunity for further enhancement of VCCI activities.

Since 2015 VCCI has been serving the Secretariat for the CISPR subcommittee under the electric appliances study committee. Under the circumstances VCCI is to assume the primary responsibility also for the development and enforcement of domestic standards on the control of electromagnetic disturbance applied to products falling into the electric appliance safety act as well. We greatly count on VCCI to play the pivotal role in this endeavor to enlarge the front of radio wave utilization in Japan.

There is no doubt that the utilization of radio waves and ITE will play vital roles in the lives of people and their socio-economic activities as IoT advances. We expect VCCI will keep playing vital roles also in the front of the new environment.

Isao Sugino

1990	Joined the Ministry of Internal Affairs and Communications
2012	Manager, Telecommunication Systems Division, Telecommunication Business Department, Telecommunication Bureau
2014	Manager, Electromagnetic Environment Division

Celebrating 30th Anniversary of VCCI

Manager, Information and Communication
Electronics Division, Commerce and
Information Policy Bureau,
Ministry of Economy, Trade and Industry

Takatoshi Miura

I like to extend my hearty congratulations to VCCI for its 30th anniversary.
VCCI has been contributing its autonomous efforts to the betterment of electro-magnetic noise environment in Japan for as long as 30 years, so the consumers can enjoy radio and TV reception without getting disturbed by annoying electro-magnetic noises emitted by nearby PCs and other electronic equipment. This scheme is realized with the system made of registration of measuring facilities, conformity verification reporting, market sampling test and education of measurement engineers which have all been working well in concert with each other.

Looking back over the past 30 years the number of VCCI members was approximately 100 companies at the time of VCCI was founded but now it has grown to as many as 1200+ companies engaged in the business of information communication equipment. Turning our eyes to home environment there are variety of equipment used for personal applications such as smart phones and tablet computers on top of conventional PCs and facsimiles. This fact implies that information communication equipment are becoming commodities in our daily life so that VCCI's role is getting more and more important in maintaining home environment noise-free.

Right now the situation concerning information communication equipment is shifting to the era of IoT leaving the Internet and mobile communications behind. This fact is reflected in "The revised strategy for the restoration of Japan (revised in 2015) – "Investment for the future – Productivity revolution." Things stressed here is the importance of earlier adaptation to new technologies including IoT, Big Data and Artificial Intelligence among others. Turning to METI it has installed "Industrial structure study group" with the mission to develop a plan to be shared by the government and private sector while the ministry established "IoT promotion consortium" in collaboration with MIC. These facts just indicate how the government is serious about the creation of advanced projects hand in hand with private sectors. Under the circumstances it is assumed that information communication equipment will be more and more diversified and widely disseminated. Smooth implementation of related policies needs cooperation of VCCI and other related organizations.

We hope your organization will further prosper in the years to come by seizing this opportunity of the 30th anniversary.

Takatoshi Miura

April, 1992	Joined Ministry of International Trade and Industry (Small and Medium Enterprise Agency)
August, 2002	Assistant advisor, Cabinet Legislation Bureau-1
June, 2005	Assistant to section manager, Administrative General Affairs Department, Minister's secretariat, Ministry of Economy, Trade and Industry
June, 2006	Assistant to Section manager of Finance Division, Business Environment Department, Small and Medium Enterprise Agency,
June, 2007	Assistant to councilor, Small and Medium Enterprise Agency
April, 2008	Planning staff, Accounting section, Minister's secretariat
August, 2009	Manager, Diet administrative section, Minister's secretariat
October, 2011	Manager of Finance, Business Environment Department, Small and Medium Enterprise Agency
July 2014	Section manager, Information and Communication Electronics Division,Commerce and Information Policy Bureau, METI

30 years of voluntary control of EMI

Chairman, VCCI Council
Professor emeritus, The University of Tokyo
Chairman, Railway Technical Research Institute

Eisuke Masada

In 1980s it became obvious that EMI disturbs the public infrastructure such as telecommunications, broadcasting, power supply and railway operations among others due to rapid increase of ITE and other electronic equipment in home and offices. Under the circumstances IEC started the development of international standards to mitigate such interferences. In IEC CISPR was given the responsibility for high frequency phenomena and TC77 for low frequency phenomena below 9KHz. In Japan, a small, overpopulated archipelago, obstacles caused by EMI had already been experienced in various fields.

Under the circumstances while public enterprises wanted EMI control by regulations, the regulatory approach was difficult for the following reasons. They were (1) electric, electronic and information technology equipment were manufactured by many small – medium firms which were difficult to watch, and (2) the industry was opposed to the introduction of new regulations in the market because it may hamper globalization of the deregulated market. Under the circumstances there was a very much noteworthy occurrence in 1985, which was the establishment of VCCI by the industry for self-regulation of high frequency EMI based on applicable CISPR standards. Since then VCCI has been remarkably contributing to the standardization of high frequency range EMC for ITE.

As to low frequency EMI the increase of harmonic current over the power supply network was causing various interference problems around that time to be

solved urgently. Under the circumstances attempts to control harmonics current generated by electric and electronic equipment were made in the two fronts.

One was International Standardization in IEC/TC77 and the other was control with regulation by the Electric Utility Industry Law of Japan. I myself too was involved in those activities. However, it was very difficult to come up with effective measures because facilities as the source of EM noise generation were widely spread from heavy and large electric machines to electric/electronic appliances used in home and offices. The practice of VCCI provided us with a very good reference which helped us develop a practical guideline for the control of harmonics. This guideline referenced in the design and installation of associated goods and equipment has been working satisfactorily for the control of EMI caused by harmonics up to today.

Recent advancement in network technologies (NIT) has brought about the situation in which ITE are utilized embedded in various systems of industry and society. It is easily understood that EMC has become indispensable for systems to be sustainable just by thinking about auto-driving capability of automobiles. Technologies and systems for EMC measurement and certification of VCCI are expected to be equally applicable to “smart” equipment and devices interconnected over networks. I am convinced, therefore, that the significance of VCCI will continue to grow backed by its proven certification scheme.

On the occasion of 30 years anniversary of VCCI

Chairman, Radio wave utilization environment committee,
Information communication technology subcommittee,
Information and Communication Council, MIC

Masao Taki

I like to offer my hearty congratulations for the 30th anniversary of VCCI.

In January 1985 (30 years ago) Publication 22 was released by CISPR. On December 2 of the same year the Telecommunication technology subcommittee of the Ministry of Post and Telecommunication (today's Information communication technology subcommittee of MIC) issued a recommended guideline "Limits and measurement method for EMI emitted by information technology equipment." I understand VCCI was established to implement the self-regulatory scheme with this guideline as the frame.

On December 11, 2015, just 30 years after that, Information and Communications Council of MIC issued recommended guidelines for "Electromagnetic compatibility of multimedia equipment – Requirement on emission" based on CISPR 32 in response to the order of the Minister. The coincidence that CISPR 32 was released in the year of VCCI's 30th anniversary will be remembered by many for long time in the future.

My main domain of work has been the schemes to protect human bodies from the exposure to radio waves. The year when VCCI was established was the time when the US FCC started regulations against human exposure to radio waves by recognizing the licensing to telecommunication and broadcasting facilities is as decision making to impact the environment. This incident led to policy making on the protection of human bodies from radio waves (1990) and the establishment of the radio wave act to legalize it. I have walked through the period of this same 30 years overlapping with the history of VCCI. Initially I did not have much contact

with VCCI due to different focus between us, but later my relationship with VCCI became much closer as radio disturbances and human exposure issues were both subjected to the deliberation of the Radio wave utilization environment committee of MEC from 2010. In looking back over the past 30 years I was amazed by the fact that the same problems keep going in front of us while a lot of things have greatly changed in the 30 years. I feel that this recognition is commonly applicable both to radio disturbance problems and human exposure to radio.

In 2014 international symposium "EMC'14" was convened by the Environmental Electromagnetic Engineering Committee under the sponsorship of the Communication Society of Electronic Communication group. This international symposium has been convened in every five years. Its first meeting was held in Shinagawa, Tokyo in 1984 with Dr. Risaburoh Satoh as the chair of the organizing committee. Coincidently this convention has the same history of 30 years behind it. In the symposium of 2014 I served the chair's position of the organizing committee. VCCI assisted us heartily from the beginning of the preparation which greatly helped us to bring the convention to the great success in terms of academic sense and operational aspects, for which I still greatly thank VCCI.

I heartily respect VCCI for keeping the operation of autonomous control of EMC for as long as 30 years. The reason why I strongly feel so is as follows. The criterion of the establishment and running universities in Japan have been changed to sweeping ways by abolishing detailed rules in expecting students to autonomously improve the quality of learning. I have learned from this trend in the university that expecting people to do things under the autonomous control is very difficult. I respect VCCI because VCCI has long been operating based on this ambitious philosophy of autonomous control of EMI.

The coverage of VCCI is to be greatly expanded as multimedia equipment are in the scope of autonomous control for emission control. I strongly believe that VCCI will keep prospering in this new challenging environment just as before.

Masao Taki

1953 Born in Tokyo
1976 Graduated from the electronic engineering department, University of Tokyo
1981 Finished Doctor Course of Graduate school, Doctor of Engineering Assistant in electrical engineering course of Tokyo Metropolitan University (TMU)
1986 Associate professor of TMU
1998 Professor, Electronic Information Engineering Department of TMU
1996 – 2008 Member of ICNIRP
2005 Professor, Electrical and Electronic Engineering, TMU
2011 – 2014 URSI Commission K Chairman

On the occasion of the 30th anniversary of VCCI

Chairman, Electric appliances study committee
Hiroyuki Ohsaki

I like to offer my hearty congratulations for the 30th anniversary of VCCI.
VCCI has been playing a vitally important role for the prevention of impediment caused by electromagnetic disturbance emitted by ITE, telecommunication equipment and electronic business machines among others. The scheme which has been supporting this endeavor for more than 30 years involves the establishment of the VCCI Technical Requirements based on applicable CISPR standards, registration of members' measuring facilities, self-declaration based conformity verification and VCCI's market sampling test. Furthermore mutual acceptance of measurement data issued by accredited measuring facilities was agreed on between the US and Japan based on Mutual Recognition Agreement (MRA) between the two countries. Through this endeavor Japan's SDoC based scheme of VCCI attained parity with US's regulation based scheme of the FCC. I like to tender my hearty respects to VCCI's efforts.

Advisory Committee on Electromagnetic Compatibility (ACEC) of IEC Standardization Management Board (SMB) is responsible for grasping the status on standardization activities of EMC related organizations in the world. VCCI is one of the subject of which I am in charge, so I have had opportunities to report on the activities of VCCI from time to time in the meeting of ACEC.

The electric appliances study committee for which I serve as the chairman has a long history back to 1972. Its objective is to prevent malfunctions of electric appliances from occurring by way of reflecting applicable technical knowhow and requirements of the private sectors if there is any. In attempts to achieve this

objective it was inevitable to be well versed in the method of measurement and limits of EMI. Accordingly EMI committee was established in 1977 and has been engaged in researches on EMI up until today.

Technology of electric appliances is ever-progressing and so is requirement for their safety in a variety of ways. Under the circumstances the ministerial ordinance on the electric appliances safety act was revised to be the one based on the performance code which specifies performance required for the safety of electric appliances by positively applying related JIS standards.

The EMI committee has so far been responsible for (1) the investigation of the revision of Appendix table No.10 on the interpretation of the ordinance on technical requirements, and (2) upgrading Appendix table No.12 to JIS standard. However, it was decided that the EMI committee will only be responsible for (1) from now on. The responsibility (2) was decided to be handed over to a new subcommittee established under the committee responsible for the interpretation of the ordinance on technical requirements. VCCI accepted the role of the secretariat of the new subcommittee. Thus VCCI has become deeply involved in the activities of the Electric appliance study committee. We heartily welcome the involvement of VCCI in this endeavor.

Hiroyuki Ohsaki
Professor of Graduate School of Frontier Sciences, The University of Tokyo

March,1988　Ph. D, Graduate School of Department of Electrical Engineering,The University of Tokyo
September,2004　Current position after taking positions of assistant, lecturer and associate professor
2010　Chairman, Electrical appliances study committee
June,2011　Chairman, IEC TC77
February,2015　Vice Chairman, IEC ACEC
May,2014 – May,2015　Vice-chairman, The institute of Electrical Engineers of Japan

30th Anniversary Congratulations to the VCCI

Chief
Office of Engineering and Technology
Federal Communications Commission

Julius P. Knapp

I would like to take this opportunity to congratulate VCCI Council on the 30th anniversary of its founding. We have witnessed an incredible growth in the Information Technology industry over the past 30 years. VCCI has filled an important need in Japan by establishing voluntary control measures for electromagnetic emissions from information technology equipment, such as computers, telecommunications products and electronic office products. VCCI has been very successl in establishing a program that provides the means for the Information Technology industry to demonstrate compliance with international Electromagnetic Compatibility (EMC) requirements.

It has been over 8 years since the Memorandum of Understanding (MoU) for Information Technology equipment between the VCCI and U.S. was signed and became operational. The MoU was a great success in improving the acceptance of test data and recognition of test laboratories located in the United States and Japan. I am impressed with the continued growth and progress VCCI has made over the past 30 years. You have made important technical contributions to the science of EMC. VCCI membership continues to grow which is a great compliment to the service you are providing.

We look forward to working with VCCI in the future as opportunities to streamline conformity assessment processes for Information Technology equipment arise.

30th Anniversary Congratulations to the VCCI

Program Manager
ECT/NVLAP
National Institute of Standards and Technology

Brad Moore

NVLAP would like to extend congratulations to VCCI Council for their 30 years of service to the information technology industry. Since 2006, NVLAP and VCCI have successfully coordinated technical activities in support of quality IT products.

Best wishes to the fine staff of VCCI for their continued efforts to industry and to our established affiliation.

Moore, Brad

Mr. Moore is a Program Manager for the Electromagnetic Compatibility and Telecommunications (ECT) accreditation program at the National Voluntary Laboratory Accreditation Program (NVLAP). NVLAP is operated by the National Institute of Standards and Technology (NIST) and organized under the U.S. Department of Commerce. Mr. Moore joined the staff of NVLAP in February 2007.

30th Anniversary Congratulations to the VCCI

Chairman R&TTECA/REDCA
Nick Hooper

Chairman EUANB
Steve Hayes

Secretary R&TTECA/REDCA and EUANB
Jan Coenraads

The VCCI can rightly be proud of its 30 year anniversary in 2015 and the R&TTECA/REDCA and EUANB are proud to be connected to it, congratulating them in achieving this landmark age. The VCCI has established itself as one of the 'must have' approval regimes in the world helping to promote and support global trade.

The VCCI has a unique concept, not used anywhere else in the world – without any underlying mandatory legislation VCCI created a voluntary system where manufacturers and Test Laboratories certify products complying based on International EMC standards. One can find the VCCI logo now on many products throughout the world

The compliance rate has been proven to be higher than in areas where mandatory EMC legislation applies. This highlights the success of VCCI in the past and is the basis for further expansion of the VCCI concept in the future.

VCCI has always been searching continuously for the correct EMC measurement method, adequate calibration procedures and a high reproducibility, but always with the aim of contributing to the creation of international standards and contributing to the better EMC environment.

The VCCI 30th anniversary is thus something to be really proud of.

In a global economy where a manufacturer wishes, and commercially needs, success in multiple markets it is important to align market entry requirements. The VCCI, R&TTECA(REDCA) and EUANB know that what they are trying to achieve – confidence that products will not cause interference and co-exist in a fair and open way based on pragmatic solutions to the real world that has a constantly changing electromagnetic environment.

Of course VCCI can count on our continuous support in making a contribution to the EMC Society and improve it.

On behalf of the members of the Radio & Telecom Terminal Equipment Compliance Association – R&TTECA/REDCA and the European Association of Notified Bodies under the EMC Directive – EUANB, we congratulate VCCI with its 30th Anniversary and wish them a successful future.

Hooper, Nick

Nick is an operations manager within UL in the UK and oversees a number of the Wireless regulatory staff within the Company. He has worked for the business unit in various names for 24 years. In additional, Nick is heavily involved with standardisation within ETSI in Europe and with ANSI in the USA. Nick is involved with many groups working on evolving wireless technologies, including those developing possible solutions towards 5G.
As well as the wireless standards work, Nick is and Chairman of the Radio Equipment Directive Compliance Association (REDCA) and a member of the European Commission's Telecommunications Conformity and Market Surveillance Committee Working Group (TCAM WG)

Hayes, Steve

Steve is a senior manager within Element Material Technology and oversees a number of the EMC, Radio and safety businesses within the company. He has worked for the company (with various different names) for 23 years. Additionally Steve is heavily involved with standardisation within IEC/CISPR and CENELEC and convenor of CISPR/B, responsible for IEC/CISPR 11. Steve is involved with EMC aspects of a number of other technologies including wireless power transfer (WPT) and grid connected power converters (GCPC) and writing EMC standards for these product types.
As well as the standards work Steve is chairman of the EU Association of Notified Bodies (EUANB) and a member of the European Commission's EMC Working Party and is chairman of the EMC Test Labs Association (EMCTLA).

Coenraads, Jan

Jan is operating as independent Consultant in the EMC and Radio area. He has worked until his retirement for Third Party Test Laboratories worldwide and as Coordinating Researcher for the Netherlands Radio Agency, amongst other activities involved in negotiations in Brussels related to the EU Directives and the training of Notified Bodies and CAB's worldwide He initiated the setting up of the R&TTECA and EUANB and was chairman of R&TTECA and secretary of EUANB many years.
He now operated as Secretary of the Radio Equipment Directive Compliance Association (REDCA) and under contract of the EU Commission as Secretary of the European Union Association of EMC notified Bodies (EUANB). He is member of CENELEC Technical Committee 210.

30th Anniversary Congratulations to the VCCI

Chief Engineer
EMC Division 6th
Department of BSMI

Yung-Chi Tang

First of all, I'd like to congratulate VCCI for 30 years' anniversary and happy birthday! In this EMC family, VCCI is an energetic and friendly organization which is always willing to share their EMC research and experience. BSMI and VCCI started the interaction in 1995 when VCCI celebrated the 10th anniversary. It has been 20 years now, we have established a very close and good relationship.

During the period from 1995 to 2004, we mainly focus on the information exchange. BSMI was invited by VCCI to introduce the framework of Taiwan EMC regulations every year. In this decade, it was also a tremendous change to BSMI regulations. With VCCI's efforts and contributions, VCCI's member companies in Japan can sell their products to Taiwan smoothly. Simultaneously, VCCI also held the regular seminar in Taiwan to introduce the latest VCCI EMC regulations for their Taiwan members. BSMI always participated those seminars and also invited VCCI to BSMI for the idea and information sharing.

From 2005 to 2014, except the regular messages exchange, BSMI supported and cooperated with VCCI to hold the training of EMI measurement techniques and Antenna Calibration techniques in Taiwan. There are more than 150 persons attending the courses. In addition, BSMI and VCCI held a joint EMC seminar in Taipei in 2011with over 100 persons attending . During these 10 years, VCCI also actively hosted different workshops within IEEE EMC SYMPOSIUM either in Japan or USA and BSMI was invited to be a workshop member. VCCI's

contributions are valuable to all participants, they can obtain worldwide EMC information rapidly through participating VCCI's various events.

In celebrating VCCI 30th Anniversary, I hope BSMI and VCCI will continue the working model under current structure. Furthermore, we can look forward the opportunity of cooperation regarding the research and testing of international standards (based on CISPR standards). Then we can regularly share the results among each other and contribute our study to international EMC standards one step further.

It is a great pleasure to having 20 years' friendship with VCCI and to see a friend grows and thrives. It is always a happy thing that we can achieve the growth and development together. Again, congratulation on VCCI 30 years' birthday and have a glorious future.

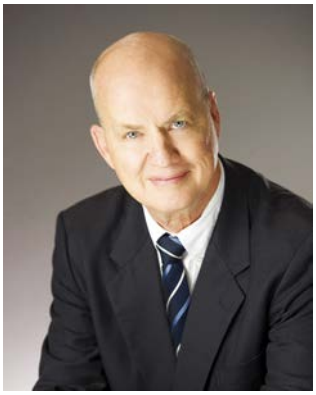
Tang, Yung-Chi

Mr. Tang, Yung-Chi was born in 1955. He graduated from Feng-Chia University with EE degree.

Mr. Tang was an engineer for Chinese Petroleum Cooperation from 1980 to 1984. Then, he worked for Electronic Testing Center (ETC) from 1984 to1993 as a manager in EMC testing field. Since 1993, he joined EMC Division 6th Department of BSMI (Bureau of Standards, Metrology and Inspection) as a chief engineer till now.

Mr. Tang leads the technical planning and development in BSMI. And he also researches new topic or technology in EMC filed, for example, IC EMC.

30th Anniversary Congratulations to the VCCI



President & CEO
A2LA

Peter Unger

A2LA congratulates VCCI in celebrating the 30th Anniversary of its organization in 2015. We have thoroughly enjoyed the opportunity to work directly with VCCI staff members under our joint A2LA-VCCI Memorandum of Understanding (MOU). The MOU, now in place for nearly 10 years, has positively impacted A2LA accredited laboratories by enabling them to more efficiently and cost effectively register under the Rules of VCCI. We appreciate the efforts taken by VCCI to ensure that our MOU is properly maintained and that our laboratories continue to realize its benefits. A2LA wishes VCCI all the best for the future success of your organization.

Unger, Peter

Peter Unger is President & CEO of the American Association for Laboratory Accreditation (A2LA). A2LA is a nonprofit, membership organization administering the largest, internationally recognized laboratory accreditation system in the United States and one of the leading bodies in the world with over 2,600 accreditations.

Mr. Unger has been involved with national laboratory accreditation since 1978. Prior to attaining his current position in April 1996, Mr. Unger served as Vice President of the Association and prior to that, was Associate Manager of Laboratory Accreditation at the National Bureau of Standards (now the National Institute of Standards and Technology).

Mr. Unger also serves as Chair of the International Laboratory Accreditation Cooperation (ILAC) for 2010-2016.

Table of Contents – VCCI 30th Anniversary Commemorative Book

Chapter 1 “30 years’ footprint of VCCI”

1. Background

■Electromagnetic Interference and EMC

In early 20th century radio communication was put into practical use in the world starting from western countries. In 1930s electromagnetic noise emitted by electric trains and the like driven by motors were recognized as the culprit of interference with radio communications. The main countermeasure in those days was to suppress radio frequency interference (RFI) to radio broadcasting and on-board ship radio communications, but the upper limits of frequency allocations for those applications were expanded from MHz ranges to GHz ranges in the advancement of radio communication technologies.

The invention of integrated circuits in 1958 became the impetus for the microelectronics evolution. The appearance in the industry of digital circuits driven by clock signals and semiconductors enabling high rate switching operations caused interference problems not only to broadcasting and radio communication facilities but to various electric appliances used in offices and homes. Thus electromagnetic noise problems induced research on the methods to prevent electronic systems and equipment from causing malfunctions by such noises.

Under the circumstances concepts of EMI (Electromagnetic Interference) and EMS (Electromagnetic Susceptibility) were born. EMI means outbound emission of disturbance and EMS means fragility to incoming EMI. There further born was a broader concept of EMC (Electromagnetic Conformability/Compatibility). EMC is a concept to incorporate both EMI and EMS.

The hard-won knowhow of EMC has now applied even to office and factory automation and mobile electronic equipment among others. Thus EMC has now become a broad subject of research and development having lifted the level of electronics technologies behind the scene.

■Starting of EMC standardization and regulation on a global scale

The history of the standardization of EMC dates back to 1930s when radio disturbance became an issue. In 1933 international organizations including IEC convened a joint meeting in Paris to deliberate the problems of radio disturbances. They agreed on the necessity of internationally consistent method of measurement and permissive level of disturbances to facilitate international trades of things and services. The new organization established to lead the study of those specific matters was CISPR, whose meeting held in Paris in June 1934 is said to be its inaugural Plenary meeting. In 1980's CISPR became one of subcommittee under IEC, but its status is not par with other subcommittees and was positioned as a Special committee.

As for IEC, it was established in the London meeting of June 1906 attended by representatives of 13 nations including Japan based on the resolution adopted in the International Electric Conference held in St. Louise in September 1904 attended by government representatives of the member nations. The St. Louise resolutions went as follows. "A committee shall be established to strengthen the cooperation between member nations on the standardization of electric facilities, equipment, terminology, characteristics and ratings."

In the 1960's when microelectronics was raising, practical studies were conducted in the US and some other countries on the immunity of home appliances against electromagnetic disturbances. However, the start of its full-fledged studies had to wait until 1970's when the wide use of microprocessors caused EMI problems in the society.

In 1973 IEC started the development of EMC related standards by establishing TC77. The first thing for TC77 to do was to determine the split of responsibility between CISPR and TC77. The concluded sprit worked out was as follows. As to basic emission standards TC77 took mainly low frequency area below 9 KHz and CISPR took all upper frequency areas. As to the immunity standard TC77 took basic immunity standard and CISPR took products group standard. In 1977 the work on EMI started by CIPSR in 1955 was published as CISPR Pub.16 "Measuring apparatus and methods for radio disturbance and immunity."

Around the same time FCC, having estimated the explosive spread of microprocessors in the US, initiated the study of regulation on the control of noises emitted by ITE. In 1979 FCC established the rules on the emission from digital equipment – CFR Title 47 Part 15 Subpart J "Radio frequency equipment/ Computers" followed by the release of allowance and measurement methods in 1980, which was enforced from 1981. This is the background of the initiation of control of noise emitted by ITE in the US.

CISPR subcommittee B worked on the same rule based on the FCC work and released CISPR Pub.22 "Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement" in September 1985. This was the background of the establishment of international standards on EMI from ITE.

2. Foundation

■Background

The EMC problem had been paid attention to in Japan too from an early stage. In 1974 EMCJ was established under The Institute of Electronics, Information and Communication Engineers. In 1984 IEEE EMC Symposium was convened in Tokyo for the first time under the auspice of the Institute. It was the first IEEE EMC Symposium ever convened outside the USA.

It was not only in academia in Japan but also in the industry and government that the direction on EMC and CISPR was closely monitored. It is said that the Radio wave technology committee of the MPT (Ministry of Post and Telecommunications) which is now the MIC (Ministry of Internal Affairs and Communication) had already been ready to introduce CISPR 22 in Japan as early as in the summer of 1984. To be more specific, MPT which regarded ITE as facilities using high frequency waves was preparing the inclusion of ITE in the radio wave law implementation rules.

On the other hand MITI (Ministry of International Trade and Industry) which is now METI (Ministry of Economy, Trade and Industry) had an intention to contP, however In April 1985 abolished were the Radio Wave Technology Council and the Technical Committee of the Telecommunication Council and created instead was the Telecommunication Technology Committee. In November of the same year the standard concerning EMI from ITE was established based on CISPR 22 by the EMI committee under the Telecommunication Technology Committee. This was authorized as the response of the Chairman of the Telecommunication Technology Committee to Question No. 19 by the Ministry of Post and Telecommunication.

On November 28, just four days before the submission of the authorized response, however, the representatives of the four industrial associations announced to the press that they were determined to comply with the planned law on EMI autonomously. The four industrial

associations were JEIDA (Japanese Electronic Industry Development Association), JBMA (Japan Business Machine Makers Association), EIAJ (Electronic Industries Association of Japan) and CIAJ (Communications Industry Association of Japan). This announcement started a journey of EMC control by way of autonomous regulation by industries themselves not paralleled anywhere in the world.

■Purpose of the foundation

The fact that the industry made a decision to go with autonomous control of EMC and the fact that the government consented to it were great occurrences ahead of the times in view of the trend of deregulation afterwards in various fields. It is said that people involved in the foundation of VCCI believed that private organization can better manage the issues than government by timely follow-up of ever advancing technology.

The three pillars of VCCI scheme are (1) registration of measuring facilities to VCCI (the internationally passable registration system was introduced in 1993), (2) self -declaration of conformity with VCCI requirements, and (3) market sampling test by VCCI. Distinguished are early members of VCCI committees and WGs who created this scheme and put it on track.

The purpose of VCCI is to promote, in cooperation with related industries, the voluntary control of radio disturbances emitted from information technology equipment (ITE) on the one hand, and improvement of robustness of ITE against radio disturbances on the other hand, so that the interests of Japanese consumers are protected with respect to anxiety-free use of ITE.

3. Milestones

■Footprints of VCCI activities in the past 30 years

●1985 – 1987 From the foundation of VCCI to the commencement of self-regulation

VCCI was inaugurated on December 19, 1985 in the first meeting of VCCI board of directors each representing the four mother industry associations and others. Decisions made there included the approval of the VCCI articles, the official appointment of board members and the establishment of the steering committee. Mr. Katsushige Mita, the Chairman of JEIDA, was elected the first Chairman of VCCI. Decisions made in the first meeting of the steering committee that followed in the same day included the schedule of milestone events and establishment of working groups under the steering committee among other things.

On December 25 a letter of the Director of Broadcasting Policy Division of the MPT was sent to the chairmen of the four industry associations, cofounders of VCCI. What was asked in the letter was as follows in essence. The member companies of the four industry associations shall strictly manage the prevention of electromagnetic disturbances by thorough understanding of the Minister's order and appropriate actions of VCCI.

In the first three meetings of the VCCI Steering Committee held in early 1986 the fundamental scheme of VCCI self-regulation was determined. Covered there were the method of conformity verification reports filing and confirmation, displaying the conformity mark on the products and market sampling test among other things. Also determined was the establishment of committees such as Technical committee and Market Sampling Committee.

On February 25 a press release was conducted covering the method of the autonomous regulation, necessary paper work to join VCCI, schedule for explanatory meetings to follow among other things.

Also news was released on the matter to the Foreign Correspondents' Association followed by sending a print on the same contents to Tokyo offices of EIA and AEA.

In March an explanatory meetings were held in Tokyo and Osaka. On the next day of the first explanatory meeting (March 6), admission of members to VCCI was started. On April 1 each of the secretariat offices of the four organizations started accepting “registration of measuring facility” and “filing of conformity verification reports” from members.

April meeting of the VCCI steering committee approved the formation of subcommittees under it. They were Steering committee, Planning and coordination subcommittee, Technical subcommittee, Market Sampling subcommittee and Communication subcommittee.

It was determined on June 1 that the allowance +10dB is applied to Type 2 ITE newly manufactured in the period of June 1986 – May 1987 (as a mitigation measure for the transition time). With this mitigated requirement VCCI started its autonomous EMI control. The number of VCCI members was approximately 100 at the time of the VCCI inauguration.

In February 1987 the first market sampling test was completed. 15 machines of 15 companies tested at the three designated testing laboratories were all proven to be meeting the VCCI Technical Requirements.

●1988 – 1993 Introduction of measuring facility registration system

In December 1988, three years after the inauguration of VCCI, the emission limit was changed back to the regular 0dB by ending the mitigated rule in the transitional period for Type 2 equipment. The same measure was taken also for Type 1 equipment in December 1989.

Taking this opportunity VCCI conducted the first fact-finding survey in the US and Europe on the regulation for radio disturbance in October to November 1988. The program of this trip included the attendance to regular meetings of the related peer organizations in Europe and the US. This trip became a regular practice of VCCI in the years to follow until 1997 (10 times in total).

In March 1989 VCCI, having learned the merits of direct communications with related organizations in Europe and the US, installed the International Relations Subcommittee to regularize communications with peer organizations overseas and to serve VCCI members overseas rapidly increasing.

Initially VCCI’s administrative headquarter was staffed by the four founding organizations on a 2-year cycle bases but this arrangement gradually fell behind the work volume ever increasing as the number of

VCCI members grew to 300 in year 1990. Therefore, the headquarter function was changed to an independently staffed office.

In January 1991 EMC regulation was started in Korea as the second nation following Japan in Asia.

In April 1993 the measurement facilities registration system was introduced which was one of the pending items from the beginning.

On October 1, 1992 became effective was Normative Annex 2 “Rules for registration of measurement facilities” of “Agreement of Voluntary Control Council for Interference by Information Technology Equipment.”

On April 1, 1993 Registration of measuring facility was actually started.

As to facilities for the measurement of disturbance emitted by ITE, VCCI implemented Normative Annex 2 “Temporary rules on the place and apparatus for the measurement.” However, international standard on the subject based on the revision of CISPR 16 was established, which the Telecommunication council of MPT endorsed in May 1992 for its application in Japan. So VCCI followed this decision in its measuring facility registration scheme.

Measuring facility could be paralleled with a gauge to facilitate self-regulation, so while it is desirable to rely on a neutral organization to do the measurement it was unrealistic to find such organization under the circumstances, so a decision was made to establish the committee directly under the VCCI board of directors staffed with experts from academia, government offices, neutral machineries and the likes. Actual work was done in the measuring facility examination WG reporting to the measuring facility registration committee.

●1994 – 1999 Globalization of VCCI activities and the establishment of VLAC

In March 1994 VCCI conducted VCCI explanatory meeting in Chinese Taipei. It was the first trial to convene a VCCI explanatory meeting outside Japan by breaking the past regular custom of convening the explanatory meetings only in Tokyo and Osaka. The reason why in Chinese Taipei was that the number of VCCI members there was rapidly increasing next to the US. Therefore, it became customary to convene the annual technical explanatory meeting overseas including Chinese Taipei.

In April 1995 VCCI sent a study team on EMC regulations to Singapore and Chinese Taipei by taking

advantage of attendance to EMC CONFERENCE 95 convened in Singapore to make a presentation there.

In June 1995 VCCI team attended an ECMA/TC20 meeting for the first time. ECMA/TC20 is an international organization to standardize telecommunications technologies. Taking advantage of this opportunity meeting were held with ECMA and ITI (Information Technology Industry Council) of the US, which became a routine in years to come.

In late 1990's regulatory movements on EMC gained momentum in various regions and countries. EU resolved that it would implement a new approach towards "Technical harmonization and standardization" in May 1985 as one of the efforts to integrate EU. Products subjected to the new approach must meet basic requirements and bear the CE mark for distribution within EU.

The new approach directives on EMC is called EMC Directive numbered 89/336/EEC. It became effective in January 1996 via amendment 91/263/EEC, 92/263/EEC and 93/68/EEC. A central feature of EMC Directives is not to disturb other equipment (emission) and not to be disturbed by other equipment (immunity).

Started around this period was the practice of DoC (Declaration of Conformity), a scheme in which the manufacture or its agent declares that a certain product or system is in conformance with a given standard or regulation. DoC was implemented by FCC of the US in1996 and by Australia in 1997.

In 1998 BSMI of Chinese Taipei started EMC regulation.

In 1998 VCCI established within its office the VCCI testing laboratories certification center with the following two missions in order to be qualified as a participant in international mutual recognition programs. One is to run testing laboratories certification machineries based on ISO/IEC Guide 58. The other is to run VCCI testing laboratories certification center whose responsibility is to examine and certify electromagnetic environment testing laboratories based on ISO/IEC Guide 25. The two missions are strictly separated in accordance with ISO/IEC Guide 58. With this functional separation from VCCI, VLAC became eligible to participate in the international mutual recognition arrangements. It was a decision of VCCI to let the testing laboratory accreditation system and measuring facility registration system go in parallel with each other.

In April 1999 VCCI separated the VCCI testing laboratories certification center from the body of VCCI to strictly follow ISO/IEC Guide 58. The separated body was newly born as VLAC (Certification center for electromagnetic environment testing laboratory).

VLAC was accepted as a member of APLAC MRA in the APLAC MRA Council held in November 2003. Also in January 2007 VLAC was additionally approved as a member of ILAC MRA, which implies that a laboratory accredited by VLAC is recognized as a certified testing laboratory among the MRA signatories.

Also in those days the education and training system of VCCI became ready for full-fledged service. In

March 1995 the first class was held of VCCI measurement engineer training course. In the month that followed the education promotion working group was upgraded to the Education and training subcommittee. In June 1999 held were the 11th course for the training of VCCI measurement engineers and the 1st basic course for the training of VCCI measurement engineers. The two courses have been held regularly since then.

In 1998 VCCI Headquarter function was moved to the 7th floor of NOA building in Azabudai Mnato-ku Tokyo.

In 1999 the number of VCCI members exceeded 1,000 companies.

●2000 – 2005 Adaptation to the revision of CISPR 22 and starting Kit module program

In 1997 CISPR 22 Ed.3 was released on the limits and testing method for the disturbance emission from telecommunication ports. VCCI started the study of this additional requirement in 1998 while paying attention to the move in the Telecommunication Council of MPT also deliberating this issue. In actuality VCCI Technical Subcommittee conducted tests based on Ed.3 to identify problems VCCI members might encounter and find possible solutions to them. Just before the inclusion of the requirements for telecommunication ports in the 2003 revision of the Technical Requirements, however, CISPR announced that they would need to amend characteristics of ISN. Accordingly, the enforcement of the rules for the telecommunication port conducted EMI had to be postponed to 2010.

In the dawn of the 21st century ITE were more and more commoditized. So VCCI started the study of emission control program focusing on Kit modules based on the market outlook indicating the rapid increase of shop brand PCs and module products that go with them. Based on a preliminary study conducted from early 1999 VCCI established the Kit module control WG in September 2002. From April 2005 the study results were handed over to the Kit Module standard development WG, which came up with “The requirements for Kit module” and related rules with which to start the Kit module program.

The system to run this program went as follows. First, a member company participating in this program determines a module used in/with his parent electric/electronic apparatus to go with a label indicating its emission quality grade. Then VCCI measures the disturbance level of the module which the owner of the product indicates on the product.

VCCI introduced the Kit module program in a meeting of ECMA TC20 held in Stuttgart in

March 2005 for the possible cooperation VCCI can make for ECMA to go after this program. In August the same year ECMA TC20 committee and VCCI reached an agreement in their meeting in Tokyo to make the kit module program a standard for EU together.

In the same period of the time there came a momentum for VCCI to globalize its initiatives. In February 2002 VCCI held the VCCI International Forum 2002 in the United Nations University in Tokyo with the purpose to update VCCI members on the standards and regulations in the world in a timely fashion. The theme of the forum was 11SDoC standing for "One standard, One testing and Suppliers Declaration of Conformity." The panel discussion with invited speakers from regulatory organizations overseas was a first attempt ever made in Japan. Today 11SDoC, instead of compulsory programs by government, is a practice targeted in majority of countries, especially on ITE. The VCCI forum has been kept held every year since them with different themes focused.

In 2002 the number of VCCI overseas members exceeded that of Japan. Started in the same year was the filing of the conformity verification report via the Internet.

In 2005 VCCI celebrated its 20th anniversary with a commemorative meeting.

●2006 – 2010 MOU on Mutual Recognition Agreement with the US and Starting of programs on Telecommunication Port conducted EMI and EMI over GHz range

The exchange of authorization letters took effect in February, 2007 in the form of MOU (Memorandum of Understanding) on the Mutual acceptance of laboratory test data between the US and Japan. This was a fruit of negotiation with the US via related government offices for over 10 years on the assumption that market will soon be globalized. Actual operation was started on April 1, 2007.

The number of mutually recognized accredited laboratories by the end of FY2010 was 480 of the US and 269 of Japan. In the same year ACLASS of the US and JAB of Japan were added to the eligible certification bodies.

In 2008 VCCI adopted the rules on the telecommunication ports conducted EMI and the radiated EMI above 1GHz as additional VCCI requirements worked out by the VCCI technical committee.

In Aril 2009, VCCI started the registration of measurement facilities for radiated EMI above 1GHz. In August of the same year VCCI organized a workshop titled "The status on the preparation for the rules on Radiated EMI above 1GHz" in the IEEE EMC Symposium in Austin.

In April 2010 the rules on Telecommunication port conducted EMI was effectuated. As for Radiated EMI

above 1GHz it was started from October 2010 with the conformity verification testing as an option followed by full application from October 2011. In July of the same year VCCI organized a tutorial session titled “Radiated EMI above 1GHz” in the IEEE EMC Symposium in Florida.

In order to promote international cooperation on the rules for the control of kit modules EMC introduced in 2005, VCCI organized workshops titled Module Level EMI Measurement in “EMC Singapore 2008” in April 2008 and in “IEEE EMC Symposium in Detroit” held in August of the same year. Also VCCI convened a workshop on the subject in “EMC Zurich 2009” in January 2009.

Around the same time, VCCI started the seminar for measurement engineers in Taipei (first session held in 2005). Also started (in 2008) was EMC seminar for prefectural industry technology centers in Japan.

●April 1, 2009 Establishment of General incorporated foundation “VCCI Council”

VCCI was reborn as General incorporated foundation “VCCI Council” on April 1, 2009 through the application of “The order for Enforcement of the General Incorporated Associations and General Incorporated Foundations Act (enacted on June 2, 2006).”

●2011 -2015 Efforts to have VHF-LISN internationally standardized and preparation for CISPR 32

VCCI had proposed VHF-LISN (Artificial Mains Network for VHF band) to CISPR for the purpose to stabilize the dispersion in the measurement of disturbance emission from power cables. In the Sydney meeting of CISPR/SC-1/WG2 VCCI proposed to conduct a Round Robin Test among test laboratories in the world on the VHF-LISN designed to stabilize terminating conditions of power cables. Initially 20 sites of the 5 continents positively responded to the call but at the end it was settled down to 16 sites from 9 countries in which the test was actually conducted. The final report was made in the Hong Kong meeting of February 2014.

From 2012 and on VCCI had sessions with ITI and ECMA on the proposal on the VHH-LISN.

A DC document on the VHF-LISN which VCCI drafted was deliberated in the CISPR Frankfurt meeting held in October 2015. The effectiveness of the VHF-LISN was recognized there.

CISPR 32 whose edition 1.0 released in January 2012 followed by edition 2.0 in March 2015

is a standard to integrate CISPR 13 on the control of emissions from multimedia equipment with CISPR 22 on the control of emissions form information technology equipment. New schemes introduced in CISPR 32 include the use of FAR (Fully Anechoic Chamber) for the emission measurement among other things. CISPR 13 and CISPR 22, parent standards of the new CISPR 32 are to be abolished on March 5, 2017. After that day CISPR 32 will singly be used as the emission standard for the variety of equipment covered so far by CISPR 13 and CISPR 22.

In 2013 VCCI started technical assessment of CISPR 32 by establishing CISPR 32 WG. Specific work assigned to the WG among other things was to identify potential problems in developing a new set of VCCI technical requirements based on the five CDVs released in relation with Editions 1 and 2 of CISPR 32.

The CISPR 32 WG started the work on the development of the new VCCI technical requirements based on the MIC validated version of CISPR 32 in 2014. Specific actions of the WG included the participation in CISPR 32 validation meetings of the ministry for the purpose of listing up problems in creating the new VCCI technical requirements from five CDVs associated with version 2 under the deliberation in MIC.

The WG started the drafting of the new VCCI technical requirements in 2014 in parallel with the work of the MIC committee, in which VCCI members participated, to validate CISPR 32 for its application to Japan. This was to secure the new VCCI technical requirements will be harmonized with the structure of the MIC validated standard.

In July 2015 VCCI was given the role of the secretariat office of the subcommittee with the mission to adopt the new CISPR standard in Japan.

In 2010 VCCI established a taskforce under the steering committee to align VCCI operation with the revised Act on Product Safety of Electrical Appliances and Materials (Den-an Act)

In July 2013 Revised was “Ministerial ordinance on the technical standards for electrical appliances” associated with the Den-an Act.

In October 2013 “New challenges of VCCI” was prepared which summarizes VCCI efforts towards the Den-an Act and CISPR 32.

In January 2014 effectuated was the revised Act on Product Safety of Electrical Appliances and Materials (Den-an Act). What is expected in the future is rougher categorization of electrical appliances subjected to the law.

In 2015 VCCI celebrated its 30th anniversary by launching memorial activities.

Chapter 2 “Round-table talks on the 30 years of VCCI”

Future perspective of VCCI

Round-table talk on the 30th anniversary of VCCI

-Future perspectives of VCCI-

Date: November 11, 2015
Venue: Fuyo-no-ma, Tokyo Prince Hotel

VCCI Attendees:

Mr. Shinji Mine	Chair, Steering committee (STC)
Mr. Shin Kanno	Chair, Market Sampling test subcommittee (MST)
Mr. Hiroshi Inoue	Chair, Measurement facility registration committee (MFR)
Mr. Ryotaro Hoshi	Chair, Technical subcommittee (TSUB)
Mr. Shinji Kuroda	Chair, Communication subcommittee (CSUB)
Mr. Yukio Uchida	Chair, International relations subcommittee (IRSUB)
Mr. Minoru Hirata	Chair, Education subcommittee (ESUB)
Mr. Akira Oda	VCCI Managing director

Moderator Mr. Takeshi Yamauchi, Vice Chair, Steering committee

■The significance of the 30 years of the autonomous control of EMI

Moderator

Thank you all for getting together for this opportunity. On coming December 19 VCCI will mark its 30th year of activities. Today we are getting together here to discuss the perspective of VCCI in the years to come upon the reflection of the 30-year history behind us. First of all I like to ask Mr. Oda to tell us about the future direction of VCCI from this point.

Mr. Takeshi Yamauchi

Mr. Oda

The number of VCCI members is now 1,163 which is 2 times larger than 20 years ago. The ratio of Japanese members vs. overseas members is almost 1 to 1. The number of the conformity verification filing a year is almost as flat as 5,000 in the past 20 years. In terms of income to VCCI whose source is the membership fees it grew year by year up until 2005 but after that it has come to almost flat. In terms of change of the year-end balance the trend is on the slight increase side except for slight decrease in around 2007 thanks to you all. If you look at the situation from the angle of product category the majority of filed products were printers, workstations and PCs in around 1991, but recently terminal equipment and LAN related equipment are on the increase. In terms of undertaking of the market sampling test, one of the three pillars of VCCI operation, annual failure rate is around 3.5% in average in 100 – 110 samples tested a year. I think this number indicates we are doing fairly well with the scheme of members' autonomous control.

Another fact we should not overlook is that the overseas members are rapidly increasing. The same period of 30 years has also been the period of deregulation of telecommunications services and terminals. There was a movie titled "Back to the future" in which the future was 2015. An antique machine appeared in the movie was an Apple computer. The era VCCI was established is the era PC98 personal computer made its debut. If we think what will happen in the next 10 years, perhaps they will include wearables, IoT (Internet of Things) and/or Big Data and/or something else. Regardless of what they will be I am sure VCCI will continue to

be of service to the society in terms of clean radio environment.

Moderator

Thank you very much Mr. Oda. Looking back over the past 30 years, the first 20 years was the period of straight growth followed by the next 10 years of maturity which indicates VCCI has had a reasonable operational history. Now I would like to ask each of you, the chairs of a subcommittees, what your view is of the past 30 years centered around the significance of autonomous or self-control scheme of VCCI.

Mr. Mine (STC)

This may be rather a common view of all attendees here than of mine alone, but I think VCCI was one of the few organizations which took the initiatives in a project which Government would have done in the past. I believe VCCI's operation was one of the early and successful examples of such private-sector driven endeavor. Today VCCI scheme is widely recognized and accepted around the world as par with a legal scheme in terms of protection of consumers' interest. This is very unique in the world.

Mr. Inoue (MFR)

Talking from a viewpoint of measurement facility registration, recently applications from overseas have outrun those from within Japan unlike in the past. They are from Europe, China at one time, Southeast Asia regions and even India. For our committee technical superiority or excellence is the key, so it is a very important theme how to maintain our skill level.

Mr. Uchida (IRSUB)

It is my belief that no other organizations in the world operate autonomous control of emissions as excellently as VCCI. In Europe they adopt a system of self-conformance which

is suppliers' self-confirmation of the conformity, but it stays within compulsory scheme within the governmental administrative framework. VCCI scheme, on the other hand, is based on the rules established in private sector, not by government.

Mr. Kanno (MST)

Although sampling is done within Japan, about half of the sampled products are of overseas member's. Those overseas suppliers seem to well understand the marking rule of VCCI. Sometimes, however, it is overdone by attaching the VCCI mark on such product as laptop PCs AC adapters subject to the Den-an act.

Mr. Hirata (ESUB)

Among people responsible for production and delivery of ITE of companies many are conscious of the necessity of obtaining the VCCI mark, so it is necessary to do accurate measurement. This fact just indicates 30 years' VCCI efforts are being rewarded. Pardon me talking about my own company, but people are commonly saying they must obtain VCCI mark not EMI standard. This anecdote just indicates VCCI mark is a de facto standard.

Mr. Kuroda (CSUB)

In every year we participate in exhibitions in Taiwan. When I say the EMI is controlled not by regulations but by autonomous actions of manufactures, people are surprised and say how can you control noise emission with self-regulations? In majority of countries in the world it is a common sense that EMI is controlled by law. I myself have been engaged in the testing of emissions, so I know that not a small number of people questioned, "Don't we have to comply VCCI rules as it is self-regulation?" However, recently getting common is the understanding that obtaining the VCCI mark is compulsory thanks to the improved recognition of the mark.

Mr. Shinji Kuroda

Mr. Hoshi (TSUB)

30 years is a long time in a sense. From the very beginning, our target industry is neither the industry subjected to the Radio wave act or Electric appliance safety act. Nevertheless our rule is now treated like a de-fact law. We have to be proud of this fact. Schemes to enable this workings including measurement facility registration and market sampling test have been very effective. This was the results of tremendous efforts of people while working for their own companies. It is said that autonomous regulation like ours has not been a common practice in the world. However, from now on the trend may follow our approach elsewhere.

Mr. Kanno (MST)

Let me add a bit to my comment. I have an impression that the 30 years of VCCI has been the period in which people have made efforts to bring VCCI to such a status that ITE manufacturers take it granted to clear VCCI requirements. I renew this thinking every time we do inspections.

Mr. Mine (STC)

In the department I was assigned to when I joined my company there was a senior who was involved in the establishment of VCCI. He told me the situation when VCCI was established. In essence what he told me was the reason why the execution of a regulation-like rules was entrusted to VCCI, a private institute. The reason he told me was as follows in essence. The advancement of information technologies is very fast, so private institute can better and faster be cope with the need and requirements than a government institute. This period of the past 30 years is the period the foresight of pioneers was proven correct. On top of that the equally great deed was the participation of the whole industry of ITE in this scheme.

■Regulatory measures and autonomous control

Moderator

Next let us talk about the future direction on self-control. What is your view of VCCI scheme in terms of the relation with Japanese domestic laws and of the direction in the regulatory scheme in the world.

Mr. Kanno (MST)

VCCI has run the self-control scheme on ITE over the past 30 years, but this time we are expected to additionally cover the area of CISPR 32 as well. Our taskforces have been discussing the matter in the past 2 years and it is high time to determine which way we should go, going a parallel way against regulatory schemes on the things like immunity and safety or enlarging VCCI responsibility into the legal areas.

Mr. Hoshi (TSUB)

I hope the VCCI mark will be regarded as one of the marks to indicate that users can expect VCCI to deliver safe and reliable products. It is the responsibility of manufactures to deliver such products to the market regardless of whether the commitment is based on autonomous determination or forced in the legal framework. The VCCI mark is the symbol to indicate that. Under the circumstances what is questioned is how the market sampling tests work. Talking about market sampling test in the European market the failure rate is very high, almost one digit higher than VCCI case.

Mr. Kanno (MST)

Few minutes ago there appeared the number 3.5%. That is the failure rate of sampled VCCI members in Japanese domestic market. In our current system we are not to sample products of non-VCCI members. So it is not possible to come up with accurate general numbers without getting statistics in a different way, which we have not done so far due to the limited manpower and budget. We may have to do that in the future depending on the discussion from now on.

Mr. Shin Kanno

Moderator

In the national level general direction has changed in the following way. That is, first the Government changes the system from “compulsory” to “self-control.” After that if non-conforming products are caught then the Government changes back to the compulsory system. Under the circumstances the VCCI style of control is the one the government is pursuing as an ideal scheme. Market sampling test is performed also in the case of the Electrical Appliance and Material Safety Act (Den-an law in a short nickname) and the Radio Act as well but not so many cases in actuality.

Mr. Mine (STC)

In the government regulations the priority is set on the laws concerning the life of people, so the Den-an law was established in that concept. However, this law also strangely concerns the element of “noise control” I don’t know why. Our headache is that we have to live with this law cleverly. This issue is a very important issue in s new rules of VCCI. A demarcation line between legal control and autonomous control is drawn between “mandatory” and “free choice.” If ITE is to be controlled in a mandatory fashion then it is necessary to pick “mandatory” part from ITE. If you look around the world the SDoC is a trend which VCCI has been implementing from the beginning. If different manufactures of various products employ SDoC of VCCI style sustained by the 3 pietllar scheme, “measurement facility registration,” “conformity verification testing,” and “market sampling testing,” then radio environment of Japan would become cleaner. In further forwarding this concept there still are a lot of things VCCI is expected to fulfill, which should be worked out together with MIC and METI. The bottom line will be to make up for shortages each other.

■Expansion of VCCI activities

Moderator

So much for the issue of self-control and I like to ask all of you how to expand VCCI activities in the future from various perspectives. For example, how to idealize the ratio of domestic members and overseas members, how to increase the number of conformity verification reports filing and so on and so forth.

Mr. Hoshi (TSUB)

I think that manufacturing activities will gradually be shifted to South East Asia regions while Japanese industry will shifted toward solutions and services. Therefore, it is likely that the ratio of filing by overseas members will increase in the years to come. If that is the case then it will be necessary to do promotional or public relations activities to have VCCI scheme better understood by overseas people. In terms of filings of multimedia equipment how VCCI should face with the situation is the question in hand. Discussions in the Technical Subcommittee include the filing should simply be accepted as multimedia equipment with no questions asked. A trend seen here is that communication equipment and home appliances

will increasingly have elements of ITE, so the number of filing will increase further. Under the circumstances the importance of increasing public awareness of VCCI scheme will be a key in our activities.

Mr. Ryotaro Hoshi

Mr. Kuroda (CSUB)

According to the Annual Report for FY2014 225 companies of total 603 member companies are of the US, which is the top in VCCI membership, but Taiwan and China added together takes up 200 companies, one third of members in Asia. Taiwan alone takes up 140 companies, the top in Asia, next to Japan. Increasing in Taiwan is manufacturers of ITE. Therefore, we think it is worthwhile to keep participating in Computex Taipei every year. Turning our eyes to Europe, VCCI member population is fairly small there with Germany being at the top with only 20 member companies. While the amount of ITE export from Europe is small, I tend to think that it could not be a bad strategy to increase VCCI members there. Right now we are renovating the VCCI web site which only supports English language other than the base Japanese language. I personally think it will be ideal if other languages such as Chines and Korean are also supported. Also I think it will be good for VCCI if we can liaise with the other subcommittees, especially with the education subcommittee to add more values to the web site.

Mr. Hirata (ESUB)

We have to reflect our past actions which have been empty of education program addressed overseas members. From now on we need collaborative work with the Communication subcommittee and International subcommittee as to ho education programs.

Mr. Minoru Hirata

Mr.Mine (STC)

We had once discussed how to do with educational program for overseas members. Ideas included web based lectures and e-learning among others. It will not be bad if we come back to those ideas anew. Before that we should address basic question, “Will it really be necessary to facilitate education for overseas members in the context of effects and costs.”

Mr.Kanno (MST)

Speaking of the number of overseas VCCI members, I personally do not think it will increase noticeably because the size of Japanese market is not expanding so much. There are even such companies which move manufacturing division from China back to Japan. But this is about the category of ITE. It may be different if we count multimedia equipment in the picture.

Mr. Uchida (IRSUB)

It may sound a bit negative, but I think it is important to maintain today’s number of VCCI members who keeps membership of VCCI by evaluating the value of VCCI activities. It will also be important to deploy to overseas locations. The first thing we have to do will be to analyze natures of member companies, are they manufactures or testing labs for example, and consider matching approach to them via channels of Communication Subcommittee. It is also important to functionally widen the VCCI window to entice applications for multimedia products.

Mr. Inoue (MFR)

We handle applications from overseas as well as from within Japan. Talking about country distribution in the incoming applications, 40% is from within Japan, 22.3% from Taiwan, 14.5% from Chia and 10% from Korea. So it is now a common practice to register measurement facilities to VCCI. Recent problem is that many applications seem to have been prepared fully by third party service offices. So we make it a practice to have the contents checked within WG in such a way that our action will not be regarded as technical guidance/ assistance which may be inappropriate. In many cases we feel that the applicant does not have proper knowledge about the VCCI requirements, so we are worried about the future of this service when the number of applications increases further.

Mr. Hiroshi Inoue

Mr. Mine (STC)

As to the number of VCCI members, it fell at the time of the Lehman crisis and has been staying almost flat since then. In a sense it is in a saturated state. So our effort from now on will be to maintain the current level, not dear to increase. Mr. Kanno said that there are ITE getting distributed in the market without the VCCI mark attached. As far as autonomous control of disturbance emission should keep working as de facto standard the participation in the VCCI program by all is a prerequisite, so it is important to invite a new company to the VCCI program.

Mr. Kanno (MST)

Doctor Inoue said that sometimes VCCI had to do excess services in the process of measurement facility registration. I think that might be taken care of by education subcommittee.

Mr. Inoue (MFR)

Measurement Facility Registration Subcommittee cannot go beyond standards, so I would expect the education subcommittee to take care of the training on the basics.

■Oversea appraisal of VCCI

Moderator

What is the reputation of VCCI in the world?

Mr. Inoue (MFR)

The fact that applications coming in from new countries indicates that VCCI is reputed overseas in some extent.

Moderator

How about filing from other countries than China, Taiwan and Korea?

Mr. Inoue (MFR)

We have an application fed from India although it is still under assessment. Also some inquiries are in our hands which are from a Southeast country.

Mr. Oda

Few minutes ago Mr. Mine talked about maintaining the number of VCCI members, I understand by that you mean the number of VCCI members is somewhat maintained as new comers offset retired members. Is my understanding correct?

Mr. Mine (STC)

There go mergers of companies while new members join us, so pluses and minuses maintain the size of VCCI membership.

Mr. Hoshi (TSUB)

The question is, which direction we should go, isn't it? Manufacturing basis is transferred to India and Indonesia so VCCI applications may come from those countries, I guess.

Mr. Inoue (MFR)

Our country inventory on our hands includes Denmark, France, Germany, Israel, Sweden, Canada and Australia.

Mr. Yukio Uchida (IRSUB)

I take that the number of countries where CISPR 32 is adopted is still small, but I guess it will grow in the future. I think VCCI members are interested in what countries will implement CISPR 32 and when. My IR Subcommittee is committed to follow the trend. It is my wish to add CISPR 32 Ed.2 to the study list. Recognition rate on VCCI in Asian countries

is reasonably high. If you search in the website for the necessary preparation for starting business in Japan you get VCCI standards without fail. In that aspect VCCI's recognition is high, I should say.

Mr. Yukio Uchida

Mr. Kanno (MST)

The "recognition" only indicates that VCCI mark is necessary on the products to be exported to Japan, but that's the end. How the VCCI mark will have to be obtained is not a concern at all, I guess.

Mr. Hoshi (TSUB)

It is my wish/plan to implement such a program as follows. That is, we collect inventory of problems in our daily operations and share them in international fora and symposiums. This will help inexperienced countries to improve their skills to better control EMI. Normally the entry to overseas symposiums is made mostly by manufactures of measuring apparatus. But form Japan a lot of people from academia make entries. VCCI is neither of them but has a lot of experience accumulated in the problem of EMIs. That's why VCCI is admitted in working group of CISPR A. This provides VCCI with good opportunities to make sustainable relations with the EMI related world. We are neither a manufacturer, nor academia so we are able to feed back our market based experiences to VCCI members in a straight fashion. In the end VCCI members can ship good products in the world market.

Mr. Kuroda (CSUB)

VCCI's communication activities are categorized into two, one is for VCCI members the other is for non-members. What we should do for each group is always in the list of discussion. In the meantime we should collaborate with other committees and design programs including education and training and VCCI events tailored for the both groups of people. Not to change the subject, but we participated in an exhibition in Germany for the first time. My impression was that the name recognition for VCCI is marginal in there compared to Asian countries. It is an open question as to what country we should focus on from now on.

Mr. Hirata (ESUB)

I said we have not much served overseas members for their education and training, but a closer look at the situation revealed that VCCI carried out education in Taipei around 2008. After that there has been no execution of program overseas. I think we should pursue the possibility of running education programs overseas in a regular basis. For that purpose we have just started English translation of text for the courses. So we may have some progress in the next year.

Mr. Kanno (MST)

I have a different opinion about running the education course overseas. I don't think we have to treat foreign members differently from Japanese member in education and training. What we need is ever opened communication channels between overseas members and VCCI. I found in the VCCI 10th anniversary book the fact that VCCI and overseas members had social meetings every year. Such meetings open people's mind for frank communications.

■Future technical direction and the way VCCI to go

Mr. Mine (STC)

From a view point of Steering Committee we wish more member companies volunteer the membership of our Committee, so we will have a wide variety of opinions exchanged in our problem solution taskforce for the future of VCCI.

Also what we will need in the near future is to strengthen the centripetal force of VCCI. At the time of the foundation of VCCI, top management of member companies involved in VCCI operations had a strong interest in the direction of autonomous control of EMI, which determined today's way of operations. Now after 30 years the initial wishes are faded. This is because EMI, not necessarily associated with the life of people, is gradually got out of people's focus, passing EMI test in the first round is not uncommon and so on and so forth. I think that centripetal force of VCCI has been weakened. Then what we are expected to do? One idea is to improve the service quality of our membership programs. One idea is for engineers to be able to sharpen their skills and create human networks in such a way the upper management of VCCI members will recognize it as their privilege. When I explain the operation principle of VCCI to people overseas they say they are very much impressed with the system saying that VCCI is an organization like a think tank.

Mr. Shinji Mine

Mr. Akira Oda

VCCI has been accumulating associated technologies and know-how from the day of inauguration. People had difficulty understanding measurement methods and related know-how just by reading standards and consulting manuals. One of the reasons why VCCI exists is that VCCI provide those people with the place to share such information. There are various

types of members in VCCI. In the early stage of the establishment of VCCI majority of members were electronic equipment manufacturers, but today VCCI is a place clouded with engineers of testing labs, EMI consultants, measuring instruments suppliers, faculties of universities in addition to manufactures.

Mr. Akira Oda

Mr. Inoue (MFR)

I have attended EMC Symposium of IEEE (The Institute of Electrical and Electronics Engineers, Inc.) many times. There in every meeting VCCI papers were presented. We are given a time slot in the symposium held in Japan for one session on VCCI presentation without exception. The symposium is highly reputed among Japanese academic societies. Some may think it is too much academic, but the fact is all of new standards and new regulations make their debut in the symposium.

Moderator

What about the advancement of ITE, EMC measurement technologies and directions in CISPR standards? I was impressed by the advancement of mobile phones in the past 30 years, which by the way is out of VCCI control.

Mr. Hoshi (TSUB)

I wonder if term “ITE” will be kept using from now on too.

Mr. Inoue (MFR)

“IoT” may better fit from now on.

Mr. Hoshi (TSUB)

I wonder if term “ITE” will be kept using from now on too. This is a big question.

Mr. Kanno (MST)

I think the subject of our check target will be “function,” not “equipment,” in the world of CISPR 32. It will not be easy to draw a line between the equipment with function to control and the equipment with function to pass free. The whole body is subject and part of it is subject etc. etc.

Mr. Inoue (MFR)

The question is how to treat functions not only equipment. We may not have measuring equipment for the purpose. If so it will be necessary to prepare measuring apparatus serviceable for the standard.

Mr. Shinji Mine (STC)

The reality that today’s technical requirements leave the judgement on major functions of filed product to member companies is fragile part of the system. Some VCCI members may raise the requirement for VCCI to issue a guideline on this problem one way or another.

Moderator

Before we close this discussion I like to ask you how VCCI should be run including individual subcommittees.

Mr. Hoshi (TSUB)

At the opportunity of starting VCCI control on CISPR 32 multimedia, I wish all parent industry associations get together and adopt the formal VCCI technical requirements as their internal reference standards with VCCI standing behind to give necessary advice and support.

Mr. Kuroda (CSUB)

We cannot sit relaxed but to always follow the changes and advancement of equipment and technologies and communicate widely the significance of attaching the VCCI mark on the equipment. This is the mission of the communication subcommittee, I believe. I think we should propagate the values of VCCI activities in the world including evolvement of VCCI requirements.

Mr. Hirata (ESUB)

I think we will have to rebuild education programs based on CISPR 32. I will proceed with this mission by drawing a line as to what extent VCCI should cover.

Mr. Kanno (MST)

In terms of execution of the market sampling test it has been and will be executed based on the rules VCCI established including measurement facilities and limits. This basic line will not be changed in the future too. As stated in the purpose of the establishment of VCCI "the objectives of VCCI is to protect the interest of consumers in Japan using electric and electronic equipment." I think this basic philosophy will remain valid even in 20 – 30 years later. So I do not believe we have to change this basic stance.

Mr. Uchida (IRSUB)

Autonomous or self-control system is idealistic. The rate of conformity is surprisingly high although the number is about within VCCI members. I wish VCCI should remain to be such an institute that will further promote this momentum.

Mr. Inoue (MFR)

From a viewpoint of measurement facility registration it is necessary for VCCI to grow in synchronization with the most advanced directions in the world, even if VCCI is unique in terms of its scheme. If we have a common working group which is in sync with the movement in the world and can share the updated information with other WGs in VCCI, it will beery serviceable. The other thing I like for us to move forward is application registration via Web. Also what we have to emphasize anew is the merits of bearing VCCI mark on the ITE. Good working relations with VLAC should also be maintained.

Mr. Mine (STC)

I think it is important to widen the gate of VCCI to entice industry associations in the era of CISPR 32. It is clear that products utilizing radio waves will be increasing, so the importance of EMI regulation will be increased further. EMI control is a common challenge to all product categories, so the scheme of autonomous control will be shared by many companies for cooperative operations. VCCI should declare its intention to lead such movement in Japan, so members of VCCI can positively participate in our activities.

Moderator

Lastly, we like to hear words to summarize today's discussions.

Mr. Akira Oda

I really appreciated your positive participation in this talk. There are many precious suggestions for the way VCCI to move forward. I will take your words for reference in our activities from now on. Thank you very much.

Chapter 3 “Commemorative events for the VCCI 30th anniversary”

VCCI 30th Anniversary International Forum

VCCI held the VCCI 30th Anniversary commemorative international forum on December 19, 2015 at the United Nations University in Jugu-mae, Shibuya-ku, Tokyo. In this special forum we were privileged to have guest speakers from related Japanese government offices on top of honorable guest speakers from related overseas organizations.

【Keynote speeches】

●Present status of a use of radio waves and it's further study items -Present status of Wireless Power Transfer deal-

Mr. Masahiko Sawabe,
Deputy Director, Electromagnetic Environment Division, Radio Department, Telecommunication Bureau, Ministry of Internal Affairs and Communication

●Governmental Efforts to IoT Society

Ms. Yoshiko Tsuwaki,
Deputy Director, Information and Communication Electronics Division,
Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry

【Presentation of regulatory trends in each country】

●America:FCC Equipment Authorization Procedure and Updates
●Europe:Latest EMC information and Market Surveilance from EU
●Outline of the Publication CISPR 32 Ed.2.0 and it's further study items

The forum went successfully as implied by lively Qs and As session afterwards. Treated questions included those asked in writing beforehand in addition to those asked then and there. The number of attendees to the forum was as many as 170 from VCCI members in Japan and overseas, centered around manufactures and testing laboratories.

VCCI 30th Anniversary International Forum Program

Time	Minutes	Item
10:30-10:40	10 min	Opening remarks Mr. Keiichi Kawakami, President, VCCI Council
10:40-11:10	30 min	"Present status of a use of radio waves and it's further study items - Present status of Wireless Power Transfer deal - " Mr. Masahiko Sawabe Deputy Director, Electromagnetic Environment Division, Radio Department, Telecommunication Bureau, Ministry of Internal Affairs and Communication
11:10-11:40	30 min	"Governmental Efforts to IoT Society" Ms. Yoshiko Tsuwaki Deputy Director, Information and Communication Electronics Division, Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry
13:00-13:15	15 min	"VCCI Update" Mr. Akira Oda Director, VCCI Council
13:15-14:05	50 min	"FCC Equipment Authorization. Procedure and Updates" Mr. Mike Violette Director, American Certification Body
14:05-14:55	50 min	"Latest EMC information and Market Surveillance from EU" Mr. Stephan Winkelmann BNetzA
15:10-16:00	50 min	"Outline of the Publication CISPR 32 Ed.2.0 and it's further study items" Fujio Amemiya, Dr. Eng. The Chief of Working Group I, Subcommittee on Electromagnetic Environment for Radio-Wave Utilization
16:00-16:50	50 min	Q&A Hosted by Mr. Yukio Uchida (Chairman of VCCI IRSC)
16:50-17:00	10 min	Appreciation to the guests and wrap up

Proceeding

■Keynote speeches

●“Present status of a use of radio waves and it’s further study items”- Wireless Power Transfer technology by Mr. Masahiko Sawabe

The number of wireless radio stations in Japan has exceeded 160,000,000 now and monthly average traffic increased more than 5 times in the past 3 years. Transmission rate became 10,000 times faster in the past 30 years with the perspective of realization of the 5th generation wireless communication is not at all a dream by 2020. As for the new frequency allocations we have a plan to secure 2700MHz bandwidth by 2020 including wireless LAN. In addition, MIC is promoting Wireless Power Transmission system so many WPT enabled equipment is expected to be introduced in the market including electric cars, smartphones, tablet PC, office equipment, home appliances and notebook PC just to name a few. Therefore, it is very important to prevent wireless communication from harmful crosstalk. This is one area we are focusing on in terms of prevention of crosstalk with other radio communications by the rules institutionalized.

●Efforts of the government toward IoT based society by Ms. Shigeko Tsuwaki

Now the 4th generation industrial evolution is being occurring by IoT which connects up everything with the network, things obtained by analysis of big data and Artificial Intelligence based on deep learning, among other things. The effects of all those things are expected to propagate to people’s life, employment structures and socioeconomic systems. The Ministry of Economy, Trade and Industry is formulating “A vision of the new industrial structure” by 2030 through the deliberations in “the new industrial structure committee” under the Industrial Structure Council. Also METI established “IoT promotion laboratory” under the IoT promotion consortium to create advanced business models and change of related regulations.

■Presentations

●Report on recent activities of VCCI by Mr. Akira Oda, Director of VCCI

Mr. Oda talked about the gist of VCCI (objectives, organizations and changes in the number of membership), the operation of VCCI (the three pillars of activities, the system of conformity declaration and market sampling test (results and analysis). He concluded that he would dedicate himself to the maintenance of the clean radio environment in Japan.

●FCC Equipment Authorization , Procedure and Update by Mike Violette, Director, American Certification Body

The covered topics included the procedure of FCC certification, types of certification (key words - exclude, verify, conformity declaration and proof), selection of certification route, the way to find the FCC part applicable to the equipment, market surveillance, FCC rules and its revision method and recent changes, and explanation of TCB function. Also he talked about certification in Canada and its difference from FCC

●Latest EMC information and Market Surveillance from EU by Stephan Winkelmann, NetzA

Topics covered included major changes in the new EMC directives (2014/30/EU), transition time, European guideline under preparation, changes in German market surveillance regarding EMC/RE Directives, problems in European market surveillance office (against agents for mail order), summary of 2014 statistics and outlook for 2015/16 etc.

●Release of CISPR 32 Ed.2.0 and future challenges by Fujio Amemiya, Leader of the working party, Radio Wave Utilization Environment Committee

The current status on the bundling of ITE, broadcasting receivers and audio-video equipment in CISPR 32 Ed.2. The gist of CISPR 32 Ed.2 (definition and applicable scope of multimedia equipment, changes from CISPR 13/22, the basic standard referenced in the measurement of radiated/conducted emissions, their limits and EUT measuring arrangement and operational conditions followed by remaining problems (CISPR 32 maintenance and its adoption as Japanese standards).

Overview of the venue

Mr. Kawakami making opening speech

Mr. Masahiko Sawabe

Ms. Shigeko Tsuwaki

Mr. Akira Oda

Mr. Mike Violette

Mr. Stephan Winkelmann

Mr. Fujio Amemiya

VCCI 30 years' anniversary reception

Date/time: 18:00 – 20:00Hr, November 20, 2015

Venue: 3F Hana-no-ma, Hotel Grand Arc Hanzohmon

Moderator: Naoyuki Tsurumi, Manager of General Affairs, VCCI

Program:

Opening greeting Mr. Keiichi Kawakami, President of VCCI

Guests of honor

Mr. Masahiko Sawabe,
Radio environment department, Telecommunication bureau, Ministry of Internal Affairs and Communication

Mr. Masafumi Ohki,
Chief, environment and recycling promotion section, IT & home electric appliances strategy department, Ministry of Economy, Trade and Industry

Presentation of testimonial of gratitude

Presenter:	Mr. Keiichi Kawakami, President, VCCI
Receiver-1:	R&TTE CA of Europe (Radio and Telecommunication-Terminal Equipment Compliance Association)
Receiver-2:	Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs, Chinese Taipei (BSMI)

Breaking open a ceremonial sake barrel

Mr. Ohki, METI and Mr. Jan Coenraads
Mr. Zhang, BSMI
Mr. Masada, Chairman of VCCI Council,
Mr. Kawakami, President of VCCI, and
Mr. Oda, Director of VCCI

Leading a toast

Mr. Masada, Chairman of VCCI Council

Speeches

Mr. Jan Coenraads (R&TTE CA)
Mr. Mike Violette (American Certification Body)
Mr. Stephan Winkelmann (BNetzA)
Mr. Fijio Amemiya (Radio wave utilization environment committee, MIC)
Prof. Masamitsu Tokuda (Professor emeritus, Tokyo City University)

Familiar talk

Closing

The gist of the party

The November 20 party was attended by approximately 150 people.

Mr. Kawakami of VCCI made an opening speech summarized as follows.

The number of VCCI member today is 1,200 companies which was only 100 companies or so in the inauguration time 30 years ago. It is said that from now on cyber world and real world will interact with each other via IoT and CPS to change the society in which VCCI will be expected to play new roles there.

Mr. Sawabe of MIC gave a congratulatory message as follows.

“The release of CISPR 32 based Japanese standard is expected soon out from the Information and Communications Council. We appreciate the fact that it is promoted by the cooperation of VCCI. It is our commitment to maintain good radio wave environment from now on too as before. I understand that VCCI will take the role of the secretariat of the CISPR subcommittee under the electric appliances survey committee to be kicked off this year. This fact implies that the coverage of VCCI will be extended from ITE to electric appliances in general. We are looking forward to the world where the utilization of radio wave will be enhanced and enlarged in this endeavor.”

Next, Mr. Ohki Masafumi, Chief of Information home appliances strategy office, METI made a speech as follows in essence.

“We very much appreciate the fact that VCCI has been tackling with the problem of disturbances emitted by ITE all the way back from 30 years ago. This is the reason why we can enjoy the use of various services made available today without being disturbed by electromagnetic noises. From this year Japanese government intends to map out growth strategy in which IoT, Big Data and AI among others will play important roles to such a degree that it will lead to the new industrial revolution. We expect the self control scheme of VCCI will keep playing an important role even in such an environment.”

Next, testimonials were presented to the two organizations overseas which have been highly cooperative with VCCI. One went to R ＆ TTE CA (via Mr.Jan Coenraads, Secretariat office) and the other to Taiwan BSMI (via Mr. Chan Kohjun of Taipei economic and cultural representative office in Japan).

Following the breaking open a ceremonial sake barrel Mr. Masada led the toast with the following message.

“Information society will more and more be advanced in the years to come. The system of Japan in which suppliers of products get together and autonomously maintain the electromagnetic environment harmlessly clean is find nowhere else in the world. I hope this kind move will contribute greatly to the advancement of the society.”

This speech led the gathering into lively and friendly chatting.

Finally Mr, Oda closed the party with the following message.

“In this gathering today I have renewed my commitment to VCCI with your strong support. Thank you very much.”

Special Commendation

Greeting by Mr. Kawakami

Speech by Mr. Sawabe of MEC

Speech by Mr. Ohki of METI

Mr. Jan Coenraads of R&TTE, Europe

Mr. Chan Kohjun of Taipei economic and cultural representative office in Japan

Breaking open a ceremonial sake barrel

Familiar talks

Chronology

1985 - 2015

Year	Month	VCCI events	External movement on EMC
1985	9		CISPR 22 published
	12	• VCCI established, headquartered in JEIDA • Established VCCI agreement • Started committee activities (Steering, Planning & Coordination, Technical, Market Sampling and Communications)	Partial release of Question 19 of Telecommunication Technology Council
1986	3	VCCI explanatory meeting/admission started Technical requirement established	
	4	Started filing of conformity verification reports	
	6	Upper limit relaxed to 10dB for Type 2 equipment	
	7	Normative Annex 3 Rules for market sampling test established	
		Released 1st issue of "Dayori"	
	11	Upper limit relaxed to 10dB for Type 1 equipment	
1987	2	Started Market Sampling Test	
	3	Established Normative Annex 1-1 Supplementary Test Conditions for Equipment under Test	
	5	Partially revised a part of Normative Annex 3 (Treatment of the results of Market Sampling Test)	
	6	Upper limit relaxed to 4dB for Type 2 equipment	
	7	Convened VCCI Business report meeting	
	9	Convened Technical Seminar (briefing on Normative Annex 1-1 etc.)	
	11	Partial revision of Normative Annex 3 (handling of uncertainty of measurement in judgement of Pass/Fail)	
	12	Upper limit relaxed to 4dB for Type 1 equipment	
1988	1	Executed the 2nd market sampling test	
	2	Held VCCI Briefing meeting (in Tokyo)	
	3	Held VCCI Briefing meeting (in Osaka)	
		HQ administrative function assignment changed from JEIDA to JBMA	
	5	Executed the 3rd market sampling test	
	7	VCCI Business report meeting	
	8	Convened VCCI Explanatory meeting in Tokyo Tentative enforcement of a part of Normative Annex 1 (Rule for follow-on products etc.)	
	9	Executed the 4th market sampling test	

	10	Convened a EMC technical seminar (on world directions including CISPR) The 1st study trip to US and Europe on EMI	
	11	Convened VCCI Explanatory meeting in Tokyo	
	12	Upper limit relaxed to 0dB for Type 2 equipment	
1989	1	Executed the 5th market sampling test	
	3	Started International Relations Subcommittee	
	4	Report on fact-finding survey on damages to other electronic equipment by EMI from ITE	
	7	VCCI Business report meeting	
	8	Established Normative Annex 4 "Treatment of options"	
	9	Convened a technical seminar (measurement of ITE, regulations in Western countries, etc.) Executed the 6th market sampling test	
	10	The 2nd study trip to US and Europe on EMI	
	12	Upper limit 0dB enforced for Type 1 equipment Conducted the 2nd fact-finding study on the disturbance from ITE to other electronic equipment	
1990	1	Participated in Nepcon Japan '90	
	3	Rules revised so that either original manufactures or brand suppliers is allowed to file conformity verification report to VCCI	
	4	VCCI HQ function became an independent organization VCCI was awarded by the central council for the prevention of electromagnetic interference Convened a technical seminar (the theme covered Issues in EMC plan in the US and the role of NIST) Exhibited at the COM Japan 1990	
1991	2	Celebrate 5th anniversary of the founding of VCCI	EMC regulations start in South Korea
	5	Exhibited at "Microcomputer Show"	
	10	VCCI explanation meeting on the guidelines held in Tokyo. Enactment of Supplementary provision 1-2 "Guidelines on measurement locations and equipment"	
	11	Establishment of WG provided for in Measurement Facilities Operations Rules.	
	12	Main secretariat office was relocated in the Sanada Building, Shibuya Park	

1992	1 10	Exhibited at "Internepcon Japan 1992" VCCI explanation meeting on registration of measurement facilities in Tokyo and Osaka In response to revised CISPR 16, Enactment of Supplementary provision 2 "Rules for Registration of Measurement Facilities" and 2-1"Guidelines for Management of Measurement Facilities"	
1993	3 4 7 9 10 	A report was issued on the preliminary test report on the measurement of site attenuation with a dipole antenna. Technical requirements was revised to enable the use of the half wave length dipole antenna for the measurement of site attenuation Convened a VCCI explanatory meeting in Tokyo and Osaka Inaugurated the Measurement facility accreditation committee Established Education business promotion WG Changed English nomenclature of "VCCI" to "Voluntary Control Council for Interference by Information Technology Equipment" Convened VCCI business report meeting Convened VCCI explanatory meeting in Tokyo Established Normative reference 1-2 "Temporary measure for the evaluation of Semi-anechoic chamber" Performed the 13th market sampling test Made the 6th study trip to the US and Europe on the regulation pertaining to radio disturbance Convened a briefing meeting on VCCI in the US	
1994	3 6 7 9 	Convened a VCCI technical explanatory meeting in Chinese Taipei Run an education course for EMI managers Established Normative Annex 1-3 "Calibration and Inspection of Measurement Equipment" Completed the creation of a Video tape in Japanese on the briefing on VCCI. Convened a VCCI business report meeting Established Normative Annex 3 "Rules for Market Sampling Test" The 7th study trip to the US and Europe on the regulation for the prevention of EMI Invited Mr. Ralph Calcavecchio for his special lecture and open forum on EMI	

	10	Released the 2nd edition of VCCI Qs and As	
1995	1	Conducted the 14th and 15th market sampling test	
	3	Conducted the 1st training course for VCCI measuring engineers	
		Completed a video tape in English on the introduction of VCCI	
		Introduced a machine interpretation system (English to Japanese)	
	4	Investigated regulations on radio disturbance in Chinese Taipei and Singapore	
		Ran the VCCI booth in TECHNO-FRONTEER '95 – Technology on EMC and protection against disturbance	
	6	Conducted the 2nd training course for VCCI measuring engineers	
		Performed the 16th market sampling test	
		Participated in the 67th ECMA/TC20 conference	
	7	Held VCCI business report meeting	
	9	Held a VCCI explanatory meeting in Taiwan	
	10	Study trip to the US and Brazil on radio disturbances and related regulations	
		Participated in Data Show '95 with VCCI booth at Harumi	
	11	Conducted VCCI 10th anniversary events	
		Conducted the 3rd training course for VCCI measuring engineers	
		Revised Normative annex 2 and 2-1(on valid period of registration and clarification of changes in registered contents)	
1996	2	Convened a VCCI technical explanatory meeting	EMC Directives established
	3	Conducted the 4th training course for VCCI measuring engineers	
	4	Run the VCCI booth in TECHNO-FRONTIER '96 (EMC and counter- noise technologies)	
		Conducted the 17th market sampling test	
	5	Conducted VCCI briefing meetings overseas in Chinese Taipei, Hong Kong and the US	FCC adopted DoC
	6	Conducted the 5th training course for VCCI measuring engineers	
	7	Convened VCCI business report meeting Started VCCI Web site	

		Trip to survey EMI and its regulations in Singapore, Malaysia and Thailand	
	9	Investigated regulations against EMI in Western countries	
		Conducted the 18th market sampling test	
	10	Conducted the 6th training course for VCCI measuring engineers	
1997	2	Convened VCCI technical explanatory meeting	Australia introduced DoC
		Applied changes on product classifications in V-2, Normative Annex to V-3 and 1-1 of Normative Annex V-4	
	3	VCCI overseas technical explanatory meetings in Chines Taipei and the US	
	4	Participated in TECHNO-FRONTIER '97 (EMC and counter noise technologies)	
		Conducted the 19th market sampling test	
	5	Trip to the US and Europe for the study of regulations on the radio wave disturbance	
	6	Conducted the7th training course for VCCI measuring engineers	
	7	Convened VCCI business report meeting	
	8	Conducted the 8th training course for VCCI measuring engineers	
		Study on the regulations on radio disturbances in Europe and the US	
	11		CISPR Ed.3 released
1998	2	Started EMC Basic training course No. 1	EMC regulations start in Taiwan
	4	Participated in TECHNO-FRONTIER '98 (on the exhibition of EMC noise control technologies)	
	6	Conducted the 9th training course for VCCI measuring engineers	
	7	VCCI business report meeting	
		Conducted the 2nd basic training course for VCCI measuring engineers	
	8	VCCI/VLAC made a presentation at IEEE Symposium	
	9	Participated in ECMA/ITE joint meeting	
	10	Conducted the 12th training course for VCCI measuring engineers	
	11	Exhibited in COM Japan 1998	

1999	2	Conducted the 3rd basic training course for VCCI measuring engineers	
	3	The number of VCCI members exceeded 1,000 companies	
	4	Exhibited in TECHNO-FRONTIER '99 (EMC and noise control techniques)	
		Participated in ECMA TC-20 meeting	
		Established VLAC	
	5	Held VCCI business report meeting	
		Released Normative Annex 1 "Procedure for Measuring the Normalized Site Attenuation"	
		Conducted the 20th market sampling test	
	6	Conducted the 11th training course for VCCI measuring engineers	
		Conducted the 1st basic training course for VCCI measuring engineers	
	7	Held VCCI business report meeting	
	9	Participated in ECMA/ITI joint meeting	
		Conducted the 21st market sampling test	
	11	Exhibited at "COM Japan 1999"	
2000	1	Revised the VCCI technical standards.	
	4	Exhibited at Techno-Frontier 2000 (EMC and noise control techniques)	
	10	Exhibited at CEATEC Japan 2000	
	11	DOC at ASEAN SCSC (Singapore)	
	12	Celebrate 15th anniversary of the founding of VCCI.	
2001	1	15th Anniversary International Forum held	
	3	Overseas Technical briefings at San Francisco, USA and Taipei, Taiwan	
	4	Exhibited at Techno-Frontier 2001 (EMC and noise control techniques)	
	8	Participate in the IEEE EMC symposium at Montreal, Canada	
	10	Exhibited at CEATEC Japan 2001	
2002	2	VCCI technical explanatory meeting	
		VCCI International forum 2002	

	3	VCCI Overseas explanatory meetings in San Francisco and Taipei Completed FY2001 market sampling test The number of overseas members exceeded that of Japan	
	4	Participated in TECHNO-FRONTIER 2002 (EMC and noise control techniques) Conformity verification reporting Started conformity verification reporting via Internet	
	6	Conducted the 17th training course for VCCI measuring engineers Conducted the 7th basic training course for VCCI measuring engineers	
	7	Held VCCI business report meeting	
	10	Participated in ECMA TC20 in Switzerland Held VCCI workshop in Australia Participated in CEATEC JAPAN 2002	
2003	2	Participated in APEC Thailand workshop Held VCCI Engineering Explanatory Meeting	
	3	Held VCCI International Forum 2003 Completed market sampling test for FY2002 Started testing on products purchased in stores	
	4	Participated in TECHNO-FRONTEER 2003 (EMC and noise control techniques)	CISPR 22 Ed.4 released
	6	Conducted the 19th training course for VCCI measuring engineers Conducted the 9th basic training course for VCCI measuring engineers	
	7	VCCI business report meeting	
	10	Participated in Frontier 21 Electronics Show (Nagoya) Participated in EX '03 in Suzhou City, China Conducted the 20th training course for VCCI measuring engineers Conducted the 10th basic training course for VCCI measuring engineers	
	11	Participated in EMC/China 2003 held in Shanghai with the VCCI booth. Ran VCCI workshop in the convention	

2004	2	Held VCCI technical update meeting in Tokyo Held VCCI technical update meeting in San Francisco and Taipei 3 Convened VCCI International Forum 2004 Participated in ECMA TC 20 held in Belgium Concluded market sampling test for FY2003 4 Posted VCCI ad in Shinjuku station, Tokyo Participated in TECHNO-FRONTIER 2004 with VCCI booth 5 Conducted the 1st training course on VCCI antenna calibration and NSA measurement Conducted the 11th basic training course for VCCI measuring engineers 6 Participated in COMPUTEX TAIPEI 2004 Conducted the 21st training course for VCCI measuring engineers 7 Held VCCI business report meeting 10 Conducted the 22nd training course for VCCI measuring engineers Conducted the 12th basic training course for VCCI measuring engineers 11 Held VCCI workshop in Bangkok	
2005	2	Held VCCI technical explanatory meeting 3 Held VCCI technical explanatory meeting overseas (Santa Clara and Taipei) Concluded market sampling test for FY2004 4 Participated in TECHNO-FORNTIER 2005 Established VCCI standard on Kit Module program Established Normative Annex 1-2 Procedure for Measuring the Normalized Site Attenuation by Use of a Dipole Antenna and General Guidance for it 5 Participated in COMPUTEX TAIPEI 2005 Conducted the 23rd training course for VCCI measuring engineers Conducted the 13th basic training course for VCCI measuring engineers Conducted the 2nd training course for VCCI antenna calibration・NSA measurement course 7 Held VCCI business report meeting	

		Opened the 20th anniversary portal site in the VCCI Web site	
	9	Participated in exhibition in Chicago	
	10	Convened the 20th anniversary event "VCCI session" in EMCJ Kyoto	
		Conducted the 14th training course for VCCI measuring engineers	
		Held the 20th anniversary event: VCCI International Forum 2005 combined with anniversary party	
		Conducted the 24th training course for VCCI measuring engineers	
		Participated in NIST workshop "MRA for radio communication equipment"	
	12	Celebrated the 20th VCCI anniversary	
		Convened VCCI workshop in IEEE symposium and ran the VCCI booth in the site (Taipei)	
2006	2	Convened VCCI technical explanatory meeting in Japan	
		Convened VCCI technical explanatory meeting overseas in San Francisco	
	3	Convened VCCI technical explanatory meeting overseas in Taipei and Seoul	
		Issued VCCI 20th anniversary book	
		Concluded market sampling test for FY2005:	
		Introduced a new rule using 2 criteria for PASS – FAIL judgement	
	4	Participated in TECHNO-FRONTIER 2006	
		Conducted the 15th basic training course for VCCI measuring engineers	
	5	Conducted the 25th training course for VCCI measuring engineers	
	6	Participated in COMPUTEX TAIPEI 2006	
		Conducted the 3rd training course on Antenna calibration and NSA measurement	
	7	Conducted a training course for measuring engineers in Taipei	
	9	Conducted the 26th training course for VCCI measuring engineers	
		Conducted the 16th basic training course for VCCI measuring engineers	
	11	Convened a workshop in KES 2006 Korea Electronics Show	

		Conducted a training course for VCCI measuring engineers in Taipei Convened a workshop in ASEAN Colloquium, Singapore Updated the table on the world ITE related standards CISPR 22 and CISPR 24 versions introduced	
2007	1	Conducted VCCI overseas technical explanatory meeting in Taipei, Shanghai and Seoul	
	2	Convened VCCI technical explanatory meeting Established the exchange of letter (MoU) on EMC testing laboratories between Japan and the US	
	3	Convened VCCI International Forum 2007 Conducted VCCI overseas technical explanatory meeting in Sun Francisco Visited Brussels of EC and briefed related people on VCCI' stance and activities Attended ECMA TC 20meeting in Switzerland Concluded market sampling test for FY2006	
	4	The MOU (memorandum of understanding) between Japan and US was effectuated, which enables data of testing labs in the both countries will be accepted by the counter part Revised "Rules for Registration of Measurement Facilities" and "Rules for Market Sampling Test" Participated with VCCI booth in TECHNO-FRONTIER 2007 Conducted the 17th basic training course for VCCI measuring engineers	
	5	Conducted the 27th training course for VCCI measuring engineers Conducted the 5th training course on Antenna calibration – NSA measurement	
	6	Participated in COMPUTEX TAIPEI 2007 Conducted a training course for VCCI measuring engineers in Taipei	
	7	Made presentations on the five themes in IEEE Symposium in Hawaii and ran VCCI booth there	
	9	Participated in ECMA TC20 held in Belgium Conducted the 18th basic training course for VCCI measuring engineers	
	10	Conducted the 28th training course for VCCI measuring engineers	

2008	1	Conducted VCCI rules explanatory meeting combined with technical symposium	
	2	Conducted VCCI rules explanatory meeting combined with technical symposium in San Francisco, Shanghai , Seoul and Taipei	
	3	Convened VCCI International Forum 2008 Conducted VCCI workshop in Vietnam Participated in ECMA TC20 meeting Concluded market sampling test for FY2007	
	4	Made a presentation on the Kit Module Program in EMC Singapore 2008 Participated in TECHNO-FRONTIER 2008 Conducted the 19th training course for VCCI measuring engineers	
	5	Conducted the 29th training course for VCCI measuring engineers Conducted the 6th training course for VCCI measuring engineers on "Antenna calibration and NSA Measurement"	
	8	Convened a workshop on Module level EMI measurement in IEEE EMC Symposium in Detroit	
	9	Conducted the 20th basic training course for VCCI measuring engineers	
	10	Conducted the 30th training course for VCCI measuring engineers Conducted the 7th training course on "Antenna calibration and NSA Measurement" Conducted the 1st on automatic/manual measurement Participated in eMEX 08 Suzhou	
	11	Conducted the 1st training course on "Telecommunication port conducted EMI measurement" Conducted Taipei training course on VCCI measuring engineers	
2009	1	Convened a workshop in EMC Zurich 2009 Participated in EDS Fair Convened VCCI rules explanatory meeting combined with technical symposium	
	2	Registered VCCI as foundational juridical person Convened International Forum 2009	
	3	Convened Beijing workshop Concluded market sampling test for FY2008	

	4	VCCI started its operation as a foundational juridical person Started registration of measurement facility for 1GHz+ disturbances Participated in TECHNO-FRONTIER 2009 in Taipei Conducted the 21st basic training course for VCCI measuring engineers	
	6	Participated in COMPUTEX TAIPEI 2009 Conducted the 2nd training course for VCCI measuring engineers on Telecommunication port conducted EMI measurement	
	8	Conducted a workshop titled "Readiness status on the regulation for 1GHz+ radiated EMI" in IEEE EMC Symposium in Austin	
	9	Conducted the 31st training course for VCCI measuring engineers	
	10	Conducted the 8th training course for VCCI measuring engineers "Antenna calibration & NSA measurement" Conducted the 3rd training course for VCCI measuring engineers on "Telecommunication port conducted EMI measurement" Conducted the 1st training course for VCCI measuring engineers on "Measurement of EMI above 1GHz"	
2010	1	Convened VCCI rules explanatory meeting combined with technical symposium	
	3	Convened VCCI international forum 2010 Concluded market sampling test for FY2009	
	4	Started program on telecommunication port conducted EMI Conducted a VCCI workshop in Wuxi, China under the joint auspices of CQC Conducted the 22nd basic training course for VCCI measuring engineers	
	5	Conducted the 32nd training course for VCCI measuring engineers	
	6	Participated in COMPUTEX TAIPEI 2010 Conducted the 2nd training course for VCCI measuring engineers on "1GHz+ radiated EMI measurement"	
	7	Participated in TECHNO-FRONTIER 2010	
	9	Presented a paper on VHF-LISN and measurement on telecommunication port conducted EMI at EMC Europe Symposium 2010	

		Conducted the 33rd training course for VCCI measuring engineers Conducted the 22nd basic training course for VCCI measuring engineers	
	10	Started conformity confirmation experiment on the radiated EMI above 1GHz on an optional basis Conducted the 9th training course on antenna calibration and NSA measurement	
	11	Conducted the 4th training course on Telecommunication port conducted EMI measurement Conducted the 3rd training course on Radiated EMI measurement above 1GHz	
2011	1	Convened VCCI rules explanatory meeting combined with technical symposium	
	2	Ran EMC workshop in Taipei jointly with BSMI	
	3	Convened International Forum 2011 Concluded market sampling test for FY2010	
	4	Conducted the 24th basic training course for VCCI measuring engineers	
	5	Participated in COMPUTEX TAIPEI 2011 in Taipei	
	6	Investigated the new Korean EMC regulation Conducted the 5th training course on telecommunication conducted EMI measurement	
	7	Participated in TECHNO-FRONTIER 2011	
	8	Presented a paper on VHF-LISN in IEEE EMC Symposium in Long Beach	
	9	Conducted the 34th training course for VCCI measuring engineers Conducted the 25th basic training course for VCCI measuring engineers	
	10	Full implementation of the rule for the measurement of radiated EMI above 1GHz Conducted the 10th training course for VCCI measuring engineers on Antenna Calibration・NSA measurement	
	11	Conducted the 6th training course for VCCI measuring engineers on Telecommunication port conducted EMI Conducted the 4th training course for VCCI measuring engineers on Radiate EMI measurement above 1GHz	
	12	Attended European R&TTE CA meeting/ECANB meeting	

2012	1	Convened VCCI rules explanatory meeting combined with technical symposium	CISPR 32 Ed.1 released
	3	Convened International Forum 2012	
		Concluded market sampling test for FY2011 Studied feasibility of conducting market sampling test overseas	
	4	Conducted the 26th basic training course for VCCI measuring engineers	
	5	Did paper presentation on Site validation above 1GHz and kit module measurement in APEMC 2012	
		Held VCCI seminar	
		Conducted the 35th training course for VCCI measuring engineers	
	6	Participated in COMPUTEX TAIPEI 2011 with the VCCI booth	
	7	Participated in TECHNO-FRONTIER 2011 with the VCCI booth	
	8	Conducted the 27th basic training course for VCCI measuring engineers	
	9	Presented a paper in EMC EURO 2012 in Rome on Side evaluation method above 1GHz and Kit module measurement method	
		Conducted the 36th training course for VCCI measuring engineers	
	10	Conducted the 11th seminar "Antenna calibration/NSA measurement course for measurement engineers	
	11	CISPR Bangkok meeting resolved that VHS-LISN be studied in a full-scale manner	
		Conducted the 7th training course for VCCI measuring engineers on Telecommunication port conducted EMI	
		Conducted the 5th training course for VCCI measuring engineers on Radiated EMI measurement above 1GHz	
	12	Attended European R&TTE CA meeting/ECANB	
2013	1	Convened VCCI rules explanatory meeting combined with technical symposium	
	3	Convened VCCI International Forum 2013 with invited speakers including the one from Israeli for the first time	
		Conducted a study on EMC regulation in Korea	
		VCCI rep proposed in CISPR/SC-I/WG2 meeting that a round-robin test be conducted on VHF-LISN	
		Concluded market sampling test for FY2012	

	4	Convened a workshop in Hong Kong electronics show Conducted the 28th basic training course for VCCI measuring engineers	
	5	Made presentations on measurement above 1GHz, telecommunication port conducted EMI and VHF-LISN at APEMC Melbourne Conducted the 37th training course for VCCI measuring engineers	
	6	Conducted the 8th training course on Telecommunication port conducted EMI measurement for VCCI measuring engineers Conducted the 6th training course on radiated EMI measurement above 1GHz for VCCI measuring engineers Participated in COMPUTEX TAIPEI 2011 with VCCI booth	
	7	Participated in TECHNO-FRONTIER 2013	Den-an Act publicized
	8	Presented a paper on 1GHz+site, telecommunication port EMI and VHF-LISN related matters in 2013 IEEE EMC in Denver	
	9	Presented a paper on 1GHz+site, telecommunication port EMI and VHF-LISN related matters in EMC EURO 2013 in Belgium Conducted the 38th training course for VCCI measuring engineers Conducted the 29th basic training course for VCCI measuring engineers	
	10	Announced a new endeavor of VCCI – On the revision of Den-an act and CISPR 32 Conducted the 12th training course for VCCI measuring engineers – Antenna calibration and NSA measurement course	
	11	Attended R&TTE and ECANB meetings in Europe Conducted the 9th training course for VCCI measuring engineers – Telecommunication conducted EMI measurement Conducted the 7th training course for VCCI measuring engineers – Radiate EMI measurement above 1GHz	
2014	1	Convened VCCI rules explanatory meeting combined with technical symposium	Revised Den-an Act enacted
	2	Presented the final report on the results of VHF-LISN round robin test in CISPR/SC-/WG2 Hong Kong meeting Convened International forum 2014 with speakers including one from Vietnam for the first time	

	3	Convened a workshop in Seoul Korea Concluded market sampling test for FY2013	
	4	Conducted the 30th basic training course for VCCI measuring engineers	
	5	Presented a paper in EMC'14 Tokyo Conducted a VCCI seminar Conducted 39th training course for VCCI measuring engineers	
	6	Participated in COMPUTEX TAIPEI 2014 with VCCI booth Conducted the 10th training course for VCCI measuring engineers – Telecommunication conducted EMI measurement Conducted the 8th training course for VCCI measuring engineers – Radiate EMI measurement above 1GHz	
	7	Participated in TECHNO-FRONTIER 2014 with VCCI booth	
	9	Started training course "Operations" Conducted the 40th training course for VCCI measuring engineers Conducted the 31st basic training course for VCCI measuring engineers	
	10	Participated in CISPR Frankfurt meeting to discuss DC document on VHF-LISN to be standardized Conducted the 13th training course for VCCI measuring engineers on Antenna calibration NSA measurement	
	11	Attended Europe R&TTE CA meeting and ECANB meeting Conducted the 9th training course for VCCI measuring engineers "Measurement of radiated EMI above 1GHz"	
2015	1	Convened VCCI rules explanatory meeting combined with technical symposium	
	3	Convened International Forum 2015 Participated in the International Forum held in Korea Concluded market sampling test for FY2014	CISPR 32 Ed.2 released

30th Anniversary of VCCI 1985-2015

Published March 2016
VCCI
〒 106-0041
7F NOA Bldg., 2-3-5 Azabudai, Minato-ku, Tokyo, Japan

In association with
Bokkasha Co., Ltd.;Tokyo office editional section
〒 101-0064
2F Sabu Bldg., 2-5-8 Sarugakucho,Chiyoda-ku,Tokyo,Japan